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## **The progressive bee-keeper. Vol. 6, No. 1 January 1, 1896**

Higginsville, Mo.: Leahy Mfg. Company, January 1, 1896

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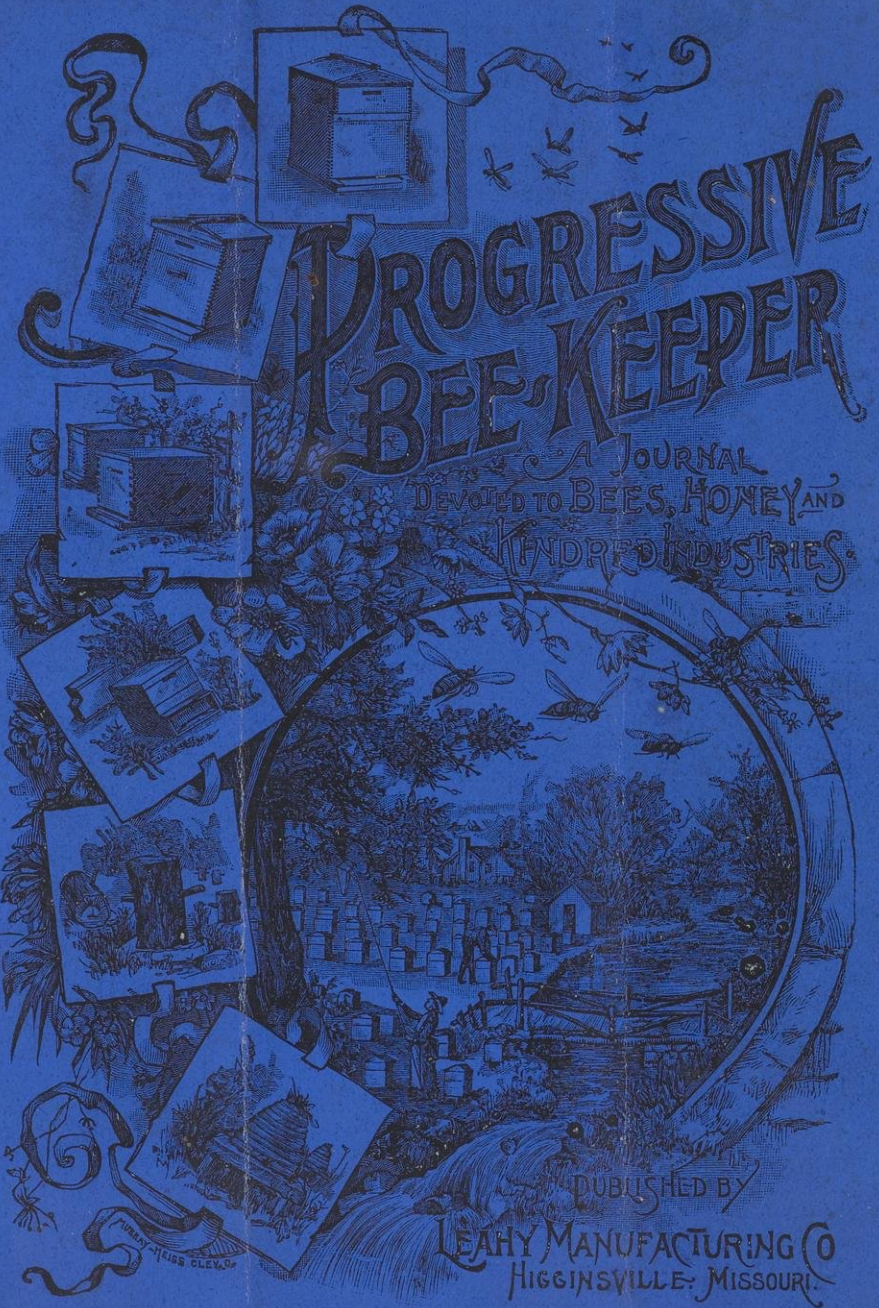
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JANUARY 1, 1896.



# THE PROGRESSIVE BEE-KEEPER

A JOURNAL  
DEVOTED TO BEES, HONEY AND  
HUNDRED INDUSTRIES.

PUBLISHED BY

LEAHY MANUFACTURING CO  
HIGGINSVILLE, MISSOURI.

Entered at the postoffice, Higginville, Mo., as second class matter.

## ADVERTISING RATES.

All advertisements will be inserted at the rate of 15 cents per line, Nonpareil space, each insertion; 12 lines of Nonpareil space make 1 inch. Discounts will be given as follows:

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

On 20 lines and upwards, 3 times, 10 per cent; 6 times, 20 per cent; 9 times, 30 per cent; 12 times, 40 per cent.

On 30 lines and upwards, 3 times, 20 per cent; 6 times, 30 per cent; 9 times, 40 per cent; 12 times, 50 per cent.

We reserve the right to refuse all advertisements that we consider of a questionable character.

## CLUBBING LIST.

We will send the Progressive Bee Keeper with

The Review	..... (\$1.00)	..... \$1 35
Gleanings	.....	..... 1 35
American Bee Journal	..... 1 00	..... 1 35
Canadian Bee Journal	..... 50	..... 85
American Bee Keeper	..... .50	..... 85

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Colman's Rural World	..... 1.00	..... 1.35
Journal of Agriculture	..... 1.00	..... 1.35
Kansas Farmer	..... 1.00	..... 1.35
Home and Farm	..... .50	..... .75

## Bee Books.

No bee keeper can afford to be without a library of bee books. A book costing from fifty cents to one dollar is worth many hundreds of dollars to one who would succeed. Every beginner should have a book suitable for beginners, (one that will point out the road), and those more advanced will need something more scientific as a reference book. We will here give the names of such books as we recommend, and will be pleased to furnish you, sending them by mail at the following prices:

**The Amateur Bee Keeper**, (a gem for beginners), by Prof Rouse, price, 28c.

**Advanced Bee Culture**,—by W. Z. Hutchinson; price, 50c.

**A Year Among the Bees**,—by Dr Miller; price, 50c.

**Manual of the Apiary**,—By Prof. A. J Cook; price, 125c.

**The A, B, C of Bee Culture**, by A. I. Root; price, 1.25.

**A Treatise on Foul Brood**, by Dr. Howard; price, 25c.

Address,

**Leahy Mfg. Co., Higginsville, Mo.**

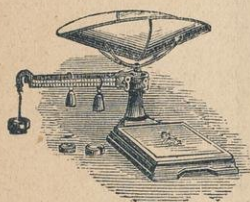
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Building Edition, monthly, \$2.50 a year. Single copies, 25 cents. Every number contains beautiful plates, in colors, and photographs of new houses, with plans, enabling builders to show the latest designs and secure contracts. Address **MUNN & CO., NEW YORK, 361 BROADWAY**

## UNION : FAMILY : SCALES.



**WE** HAVE frequent calls for a scale to weigh honey, etc., and we have now made arrangements to supply you with counter scales, with platform and tin scoop, made with steel bearings, brass beam, and nicely finished and ornamented. Will weigh correctly from one half ounce to 240 pounds.

PRICE—Boxed and delivered on cars only \$3.50; with double brass beams, \$4. Weight of above, boxed ready

to ship, about forty pounds.

These Scales can be shipped from here, and we can fill orders promptly, as we have a large stock on hand.

26 page Catalogue of Apian Supplies sent Free on Application.

# Leahy Manufacturing Company.

# RIPANS TABULES.

Disease commonly comes on with slight symptoms, which when neglected, increase in extent and gradually grow dangerous

*If you SUFFER FROM HEADACHE, DYSPEPSIA or INDIGESTION,* TAKE Ripans Tabules.

*If you are BILIOUS, CONSTIPATED, or have a DISORDERED LIVER,* TAKE Ripans Tabules.

*If your COMPLEXION IS SALLOW, or you suffer DISTRESS AFTER EATING,* TAKE Ripans Tabules.

*For OFFENSIVE BREATH and ALL DISORDERS OF THE STOMACH,* TAKE Ripans Tabules.

Ripans Tabules act gently but promptly on the liver, stomach and intestines; cleanse the system effectually; cure dyspepsia, habitual constipation, offensive breath and headache. One TABLE taken at the first indication of indigestion, biliousness, dizziness, distress after eating, or depression of spirits, will surely and quickly remove the whole difficulty.

Ripans Tabules are prepared from a prescription widely used by the best physicians, and are presented in the form most approved by modern science.

If given a fair trial, Ripans Tabules are an infallible cure; they contain nothing injurious, and are an economical remedy.

## One Gives Relief.

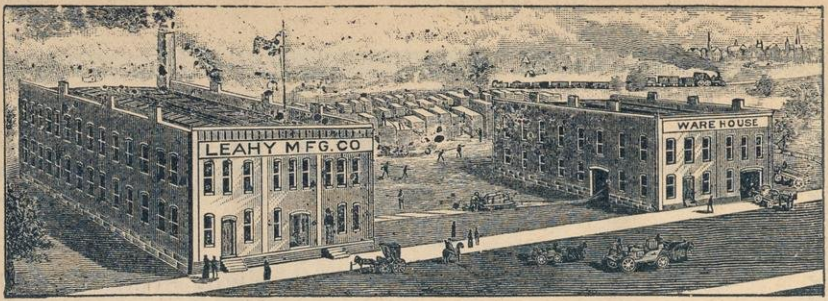
A quarter-gross box will be sent, postage paid, on receipt of 50 cents, by

**RIPANS CHEMICAL CO.,**

**10 SPRUCE STREET. - - - NEW YORK.**

Local druggists everywhere will supply the Tabules if requested to do so.

*They are Easy to Take, Quick to Act, and Save many a Doctor's Bill,*



**Largest Factory in the West** **COMPLETE STOCK.**  
*Good Supplies, Low Prices.—Our Motto.*

**READ THIS.**--Mr. Keyes says: The 100 pounds of extra thin foundation you sent us is superior to anything he ever saw, and I think the same. R. L. TUCKER, Wewahitchka, Fla

Dear Sirs:--The sections came duly to hand. Indeed they are very nice. Yes sir, they are as good as the best. CHARLES H. THIES, Steelville, Illinois.

Leahy M'fg. Co.:--I have received the bill of goods. I must say this is the choicest lot of hive stuff I have ever received from any place, I admire the smoothness of your work, and your close selection of lumber. Yours very truly, O. K. OLMSTEAD, Orleans, Neb.

Dear Sirs:--The sections arrived in due time, and are all O. K. so far as examined. They are simply perfection. I can't see how you can furnish such goods at such low prices. I hope you may live long and do well. Yours respectfully, Z. S. WEAVER, Courtney, Tex.

Gents:--I received the "Higginsville Smoker" all O. K. It's a dandy; please find enclosed stamps for another. Yours truly, OTTO ENDERS, Oswegathie, N. Y.

If you need a car load of supplies, or only a bee smoker, write to us. Remember we are here to serve you and will if you give us a chance. A Beautiful Catalogue Free.

The "Amateur Bee Keeper," a 70-page book written expressly for beginners by Prof J. W. Rouse. Price, 25c; by mail, 28c.

Address, **LEAHY MANUFACTURING CO., Higginsville, Mo.**

Make a  
 Note  
 of this.

**All Ready for 1896.**



"A WORD TO THE WISE IS SUFFICIENT"

We are located in the great Basswood Timber Belt of Wisconsin, where we have the finest Basswood in the world for **ONE PIECE SECTIONS**. We have a saw-mill in connection with our factory, enabling us to take our lumber right from the log. We have all the up-to-date machinery for manufacturing the One-Piece

Sections, and can therefore guarantee you a first-class section in every respect. Our shipping facilities are unsurpassed, having through lines of railroads to Chicago. Write us for prices. We will give bottom figures on sections.....

**The Marshfield Mfg. Co.**

Marshfield, Wisconsin, (Wood Co.), Dec. 1, 1895.

Please mention the "Progressive in answering this advertisement.

**HO! FOR KANSAS.**

I WILL handle a complete line of the Higginsville goods the coming season at the Leahy M'fg. Co.'s prices. Parties residing in Southeast Kansas or Southwest Missouri can save freight by purchasing these goods of me. I will also continue to breed Queens from the best 5-banded stock. Send for my catalogue at once. Address,

**P. J. THOMAS, Fredonia, Kans.**

Cedar Vale, Kas., February 18, 1895--Gentlemen: I just received a bill from Mr. P. J. Thomas a few days ago, and am well pleased with the same. The hives are dandies. I have been talking your goods up with bee keepers. What is the best you can do on twenty No. 1 "Higginsville Hives," to start with. Respectfully, B. F. THOMPSON.

Please mention the "Progressive" in answering this advertisement.

# The Progressive Bee-Keeper.

A Journal Devoted to Bees, Honey, and Kindred Industries.

50 Cents a Year.

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Published monthly by Leahy Mfg. Company.

VOL. 6.

HIGGINSVILLE, MO., JANUARY 1, 1896.

No. 1

## NEW YEAR'S EVE.

BY WILL WARD MITCHELL.

We stood in the moonlight together,  
One New Year's Eve long ago,  
When softer than fairy-wing's feather  
Descended the beautiful snow;  
The earth was a vision of whiteness,  
A glimpse of the heaven above.  
And the delicate glow of the radiant snow  
Was rare as the breathings of love.

The old year was dying forever,  
The year that had gladdened us so,  
But we sighed not a sigh for him—never  
A wish that he had not to go.  
So he died in the hush of the midnight,  
And we shed o'er his grave not a tear,  
And in thro' the night with a step airy light,  
Came tripping the welcome new year.

"A Happy New Year," murmured Harry,  
"God grant that it may be," I said,  
"But a twelvemonth—no more—will he tarry,  
And then, like the old, he is dead."  
"Ah, yes, it is only a season  
Fast-flitting, yet surely we know,  
There is work we can do, and a far better, too,  
Than we did in the year just ago.

There are duties too long all neglected,  
And actions of love we may do,  
There are idols of passion erected,  
Let us take a clear leaf for the new.  
God gives us the years—we should prize them  
And each help the other to be  
More useful each year of his pilgrimage here,  
Till he reaches the infinite sea."

So we entered the new year with gladness,  
While the old slumbered silently there,  
Though it mingled sweet roses with sadness,  
The new promised blessings more fair.  
So we strive as the years hasten onward,  
To be, and to do, more and more,  
For humanity here, with each hurrying year,  
Than in the old years gone before.

And often when I become weary,  
And fain would give way in the strife,  
My friend of all friends, Harry Leahy,  
Helps me fight for the laurel of Life.  
Thus thinking of new years long-buried,  
I stand by this later year's bier,  
And pray God I may with my comrade each day  
Live better the golden new year.

## Ball of Bee Glue.

S. E. Miller.

PROBABLY it will be appropriate to make some excuse for coming back into the family circle of the PROGRESSIVE after bidding adieu to all, and you thought you were well rid of one nuisance at least. Well, here it is: You see, I am like the politician who is dying to get an office of public trust. After pushing himself forward with the cheek of a government mule, if he succeeds in getting the nomination he has so long coveted, he declares he was not seeking office, but his friends insisted on him making the race. When I wrote the notes for December PROGRESSIVE, I supposed they would be the last ones, unless an occasional item or two, but in a kind letter from the editor he intimated that he should like to have me continue the notes if it would not inconvenience me too much, and of course that was enough for a fellow who likes to see his name appear in print at least once a month—so I have concluded to try to comply with his wishes.

Many of the farm journals of today have a department devoted to bees, and as a rule it might just as well be devoted to something else, for all the good it will ever do those who might wish to profit by its perusal. Usually we find the Dairy, Poultry, Horticultural, and other departments ably conducted, but when it comes to the apian department, it seems to be edited chiefly by a pair of scissors, and these are not well enough posted to know

when and where to clip in order to produce the best results. If they wish to conduct a bee department, they should put it in charge of a practical modern bee-keeper. As it is, most of the articles are not only uninteresting but misleading, and the one who would try to follow the teachings found therein would soon find himself in a bad box. Before me lies one of the leading farm journals of the country, and in it under the heading of "Bees and Pet Stock," I find a mixture of bee lore, and "Fits in Cats," "To Cleanse Cats from Lice," etc. Anyone who would expect to gather valuable information to enable him to handle his bees to the best advantage from a conglomeration of that sort would certainly be disappointed. They would find that a small amount invested in text books on bee-keeping, and a journal or two devoted to bee culture, much more satisfactory and cheaper in the long run.

"Pickings by the Way," in *Gleanings*, by Skylark, promises to be interesting reading.

"A Bee Story with a Moral," in *American Bee Journal*, Nov. 28, by C. W. Larned, is a fair representative of how a great many figure when they commence bee-keeping. They seem to think that all they need is the bees and some patent hives, and the money will just roll into their pockets.

Some folks are still harping on the foolish theory that clipping the wings of queens will finally cause them to become permanently impaired, or even cause the disappearance of those members entirely. If every keeper in the land practiced clipping on all queens, there might be some logic in this kind of "argufyen," (as the negro said) and about the year 2599, our posterity might notice some of the bad effects, but even this is doubtful. I presume people have practiced cutting the finger-nails for many centuries past, but the most of us have finger-nails yet. unless we have been unfortunate enough to have dropped some heavy weight on one or more of them, and thus been temporarily deprived of them. So long as all queens sent out by breeders have wings, it is hardly necessary to send up a cry against clipping. I suppose these fellows get this idea from what scientists and naturalists tell us about the penguins and other fowls, and insects, losing the use of their wings because they get too fat and lazy to use them. Never mind! Whenever our queens

commence coming out of the cells with cropped wings, we will quit cropping for a year or two at least.

Bluffton, Mo.

## Notes from Nebraska.

Mrs. A. L. Hallenbeck.

JANUARY, 1896! The beginning of one more year for us as bee-keepers. Many have dropped from our ranks since the bells rang in the new year of 1895. Time, the never-weary, bears us still on and on, regardless of what our wishes may be. The golden moments he gave to us one by one, to be used as to us it seemed best, but onward each moment bears us in his relentless journey. A queer journey it sometimes seems. this life of ours, with so much that should be accomplished, while so very little is done.

At this season of the year, with its short, sharp days and long cold nights, what are we as a class doing to better ourselves or our pursuits? Are we reading the journals simply to pick flaws with the methods of others, or are we, like the bees, only waking to eat. then going off to sleep again to dream of big crops and full pocket-books another year to come. If such be the case, we may turn out about like the little squirrel in the old rhyme:

"Listen, my children, I'll tell you his fate:  
He roused him at last, but he roused him too late;  
Down came the snow from the pitiless cloud,  
And gave little Squirrel a snowy white shroud"

We must be awake and alive in these wide-awake times and always ready to follow the command, "Go forward!" if we keep our place in the ranks of the onward-pressing multitude that push and crowd us on every side. If we stand idle or dreaming, someone else who is wide-awake will step into our place and we may remain behind for the rest of the journey.

These are hard times. We hear much grumbling about low prices, etc. A few days ago I chanced to be waiting near one of our little village banks. The doors were closed, as the banker had gone home to his dinner. While

waiting for the doors to be opened, a farmer, who was also waiting, relieved himself something after this fashion:

"Never saw such times! Corn only 18c per bushel, oats 17c, apples way down, nothing bringing in any money; can't borrow a cent or get trusted for a thing." He was a stranger to me, but told me he had a good farm, and fair crops and plenty of fruit beside. He wished a loan from the bank, I judged from his talk, but had money to visit the barber-shop and saloon, too, I believe, before the bank was opened and our business (which was to make a small payment on a note) finished. I don't know whether this man keeps bees, or not, or whether he reads bee-papers. If he does keep bees. I should expect to find them in a state of "take-care-of-yourself" existence. Should this copy of the PROGRESSIVE chance to meet his eye. I would like to say to him, Wake up, and stop grumbling. There are plenty of wide-awake people in the world who are making a living in spite of hard times, and some of those who are behind and below you will step in and take your place if you dream too long.

In the statistics given in Nebraska Bee-Keeper for December, Nebraska stands about as far ahead as her neighbor states in the average rainfall for the past nineteen years, and we are led to believe from the remarks which follow the report that the year 1896 will be a good one for honey. If that is going to be the state of affairs, we had better not forget to take care of our bees, and see that they have every chance it is in our power to give them.

This life is too short to spend grumbling,  
we'd better be cheerful and glad,  
There isn't a bit too much sunshine, and so  
it don't pay to be sad.  
We'd better plant good grain and flowers,  
that spring up from kind words and  
deeds,  
For no room in this life's little garden have  
we to be planted with weeds.  
The world needs the grain and the flowers  
to keep it from hunger and grief.  
And while we give help to another, our  
sad souls may too find relief.

Millard, Nebraska.

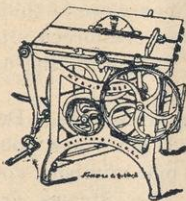
### FOR SALE.

Second-hand Comb Foundation Mills as good as new for all practical purposes.

We have one ten-inch Root Foundation Mill regular price, \$24. We will take \$15 for it. We also have one Vandevort 6-inch mill. Just the thing for making thin foundation; regular price, 15. We will sell this mill for \$8. The above mills are a bargain.

LEAHY MFG. Co., Higginsville, Mo.

## Make Your Own Hives.



Bee-Keepers will save money by using our Foot Power Circular Saw in making their Hives, Sections and Boxes. Machines sent on trial if desired. Catalogue free.

W. F. & JOHN BARNES CO.,  
914 Ruby St. ROCKFORD, ILLS.  
Please mention the "Progressive."

## Wayside Fragments.

Somnambulist.

HAIL to the New Year! and may it be a prosperous and happy one to all whose eyes may fall upon these fragments. Another twelve-month gone! Can it be? And how much farther are we advanced? What information have we gleaned, and what good have we accomplished? Truly,

Time, with a face like mystery,  
And hands as busy as hands can be,  
Sits at the loom with its warp outspread,  
To catch in its meshes each glancing thread.  
When shall this wonderful web be done?  
In a thousand years, perhaps, or one.  
Or tomorrow. Who knoweth? Not you nor I;  
But the wheels turn on and the shuttles fly."

And as the beauty and utility of this web depends on each thread which we furnish to be woven in, let us so live that we may when

"departing, leave behind us  
Footprints on the sands of time.

Friends, have you noted the efforts that the different editors of the several



bee-journals are and have been making to give us acceptable and attractive matter? Regardless of the general hard times financially, and the especial hard times apiculturally—in the face of business failure, north, east, south and west, undaunted they stand at their posts and issue to us just as much in quantity and of just as good quality as when times were at their best. These thoughts were forced upon me while noting the rounding-up numbers of 1895.

Commencing with Gleanings, December 1st number. If you want your dollar's worth in any one number, you can find it there. The Straws are "bright and clean," but we fail to find them superior to other lots, even though they were produced in that grand \$4,500,000 state capitol at Springfield, Ills. One reads in this wise:

"Former enthusiasm will come back through the meat diet," says Ernest, page 861. If some people only got their former enthusiasm, they wouldn't be very enthusiastic."

Didn't know you could be so caustic, Dr. Former enthusiasm's good enough for most of us, but I greatly fear it would take lots of butcher's stuff to furnish it—so much, in fact, that that class of trades'-people would certainly become largely indebted to E. R. for advertising.

"Temperature alone will not decide when bees fly. If badly in need of a flight, they may fly at forty degrees, whereas, they might stay quietly in their hives at sixty degrees if there were no pasturage and they had not been long confined. They'll fly at a lower temperature in bright than in cloudy weather; and when honey is yielding than when nothing is to be had."

A. I. was inclined to think a certain failure in sweet clover due to too heavy seeding, to which the Dr. replies:

"You're off, A. I. Not a plant was crowded. I've the rankest kind of growth this year, with heavier seeding but the seed was PLOWED UNDER. The failure was in soft ground with shallow seedings, and the young plants shaded with a crop of oats—bad combination."

I'd always been led to think that sweet clover would thrive under any and all conditions, and that it was peculiarly suitable to waste lands uncultivated with the plow or uncultivable. Fact is, this arrangement of cultivating for sweet clover seriously breaks into my plans.

"That Mooted Hive Question," handled by R. C. Aikin, comes as near being all there is to the whole business as will ever be given to the public. It's a cap-sheaf article, and well-worth the cost of Gleanings for a year.

Friend Delos Wood, the trouble with many of us would have to wear the ban of disgrace *all* the time were we to adopt your suggestion to Dr. M. (to don a dunce cap on the commission of an error).

Am sort 'o self-pleased to find myself in such good company as the Dr. with reference to numbering hives.

In Ramble No. 144 we are introduced in quite pleasant style to Harry E. Wilder, who seeketh to know "whether bee-keeping as a pursuit can be made a paying business when worked independently of other pursuits," whereat Rambler says, "in low prices alone is found the great Nemesis against success," (in California). Mr. Wilder this season increased from 120 to 150 colonies, and secured seventeen tons of honey besides having the chance to leave two or three tons in the apiary for a nest-egg.

E. R. Schaeff, another Californian, calls our attention to the fact that bees shaded are not only cooler themselves, but they are also cooler-tempered. A queenless colony may be distinguished by their failure to gather pollen.

Jake Smith's philosophy on adulteration is not bad. "If it's a good thing for the bee-keeper when there's a short crop to have the supply kep a goin with glucose, do you suppose the chaps that do the mixin will be so everlastin accommodatin as to haul off from the

market when the bees turn in a full supply?"

His article is followed by Doolittle's "Answers to Seasonable Questions," always solid, hence reliable. Beside all this, there follows a lot of miscellaneous matter, both interesting and instructive.

Let us pass to the November Review for 1895. Faithful and efficient R. L. Taylor occupies his usual space at the front, and gives us the results of comparisons between the several makes of foundation. The summing up cannot be given in a more concise and lucid form than in his own words: "The quality of the wax used cuts as great a figure in the quality of the foundation made as does the method of its manufacture—perhaps more." "Is wax affected by the kind of honey from which it is produced, or from excessive boiling, or from some other occult cause?" "If injured by heat, what amount of heat does the damage?" etc., etc.

Next we are met by "Notes from Foreign Journals," by F. L. Thompson, Arvada, Colo. Always interesting and instructive. To get rid of drone brood, sprinkle with cold water before it is sealed, when bees will move it out. A good way to treat brood in sections. A blind and crippled Swiss apiarian lives at such an altitude that snow remains on the ground for eight months in the year. With all these disadvantages, he is still able to crow over us in one respect—the wax-moth is unknown in such a climate. He thinks the Italians too cross; prefers Carniolans. Could it be possible a combine has been formed to boom the Carniolans?

Next, B. Taylor expands on escapes, and his little stories about their practical use makes us long for the time to come to us for a chance to test their merits. He is quite in earnest, as regards the value of drawn combs in the sections materially increasing the crop of white honey; e. g.: "I know that Mr. Vandervort and others claim that full sheets of foundation will be finished as quickly as drawn combs, but I know my honey crops for the last three seasons were obtained by the use of drawn comb, and that this year, as in previous ones, there were many cases in which the foundation had not been touched, but in the same cases the drawn combs were filled and sealed with salable honey." This thoroughly practical bee-keeper and earnest, pains-

taking and honest man claims "bee-keeping alone is not a safe basis to support a family," and that "we must turn our attention from the great cities to our rural home markets to find sale for our honey." From one-half acre he has obtained thirty-five bushels of potatoes, three bushels of beans, three bushels of tomatoes, three dozen watermelons, and all the vegetables that his family needed. Good, very good, yet he hopes to do better.

He is followed by Aspinwall, who favors outdoor wintering and gives his reasons in a forcible and convincing style. A few of his points are as follows: "All bee-keepers recognize the importance of flight after days and weeks of food consumption. The quality of food bears directly upon this point; poor food necessitates frequent flights, and the converse is true when the honey contains no foreign substances." And, again: "Taking the question of food into consideration, too much importance cannot be attached to the necessity of unrestricted flight." As he represents it, the one, as yet, uncontrollable and objectionable feature of outdoor wintering is temperature, while cellar wintering has many formidable disadvantages.

Bro. Hutchinson has returned to his first love, the Bingham. He further says the really new and useful things in bee-keeping now-a-days are few and far between. Bee-keeping has reached a stage where not many startling inventions need be looked for. No, no; cannot get a chance to experiment most of the time for years. Must have a honey boom before we can expect much of a boom in new "contraptions."

Bro. Hutchinson, no one could read of your recent trials during the serious illness of your daughter without a sympathetic throbbing of the heart, and I sincerely hope that the terrible ordeal has been, ere this, swallowed up in the past.

E. E. Hasty gets after the respondents to the Query Box in American Bee Journal, who in the least manner encourage deception in the sale of honey, and again, says, "Pass it along." (the motto originally derived from Mr. Pringle, in the American Bee Journal) "Never put any honey on the market which is unripe, untidy, or unclean."

Passing on to the American Bee Journal for December 19th, we find the opening article from Wm. Stolley,

Grand Island, Neb., to be full of valuable information concerning sweet clover. Of his 175 pounds surplus per colony, he claims  $\frac{7}{10}$  to be from sweet clover. Bees seemed to show a preference for sweet clover over alfalfa when both were equally accessible. Thinks it a good plan to cut about one-half of the sweet clover when just about to bloom, to encourage heavy sprouting, and this portion will be ready for the bees about the time the other one-half is out of bloom, thus securing pasturage until frost. "On account of its deep, penetrating roots, it is a much more reliable honey yielder than white clover, not being subjected to the effects of ordinary drouths." Page 807 presents a second article on the same subject from Peter J. Schartz, Lemont, Ills., who "prefers sweet clover to all other honey plants for a continuous honey flow." Honey unexcelled in quality. Grows on any soil, among stones, along roadsides, and all waste places. In dry seasons secures 100 to 150 pounds surplus from this source, and, if not too wet, more. For fall crop, would cut one-half about the middle of August, and the other one-half a week later. That's the kind of talk we want to hear.

And now, Mr. Editor, if it were not for commencing the New Year, with a whine, I'd just like to call your attention to the manner in which your several correspondents picked on me in your last issue. As I looked over the PROGRESSIVE for December, I felt just like pitching into some of them, but remembered in time that neglect will sooner kill an injury than revenge. But I must say to S. E. Miller, that he, like most of people, in selecting a present, committed a grave error when he willed to me those old bellows, for will not most of the readers of the PROGRESSIVE concur with me in that I am amply supplied with wind?

And that "printer's devil!" To want to fall out with me merely because my heart melted and I sought to show sympathy for a poor city chap by asking him to partake of the fat of the land. Wonder if he can have forgotten Rambler's illustration of the Missourian extending the right hand of fellowship to the world. Even if his memory serves him false in this particular, he knows full well that's the kind of material of which Missourians are made, and that, too, the latch-string will always be found on the outside. Young man, you cannot quarrel with me, for

I've learned the art of never being hurt when hit, as I find my fellow-creatures seldom hit those they cannot hurt. May you, along with the whole PROGRESSIVE family, enjoy an unusual degree of prosperity during 1896, is the sincere wish of Sommy.

Naptown, Dreamland.

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## HONEY YIELDS.

E. T. FLANAGAN.

ONE of the things pertaining to bee-keeping that has interested me ever since I took the bee fever nearly twenty years ago is that of the large yields of honey. No matter how often I see such accounts, I always read them with interest, and I regret exceedingly that I have not kept an account of all such. I am sure it would be interesting reading, especially to those that have had no crop of honey to speak of for the last few years. I do not particularly desire to induce anyone to embark in bee-keeping, for to my mind the field is sufficiently occupied already; but to those who during all the years of discouragement have held on to their bees, and have not yet lost faith in bee-keeping, I would like to give a little encouragement, for I firmly believe that what has been may be again, and if so, we may look for abundant harvests in our special line. Dr. Miller has given us a very good article on page 294 December PROGRESSIVE and I honor one that can still have practical faith in his chosen pursuit after years of discouragement. And let me tell you that such men are the ones that succeed in the end. At my home apiary, while I always get enough to keep the bees breeding well, I seldom have any surplus, and often have little enough to winter on. That is what has forced me to keep from three to five out-apiaries, the nearest not less than eight miles from home. At my

out-apiaries I always have some surplus and plenty to winter on, and generally enough to help out the home apiary. Still, meagre as is the flow here at home, as a rule, I have on several occasions secured a fine lot of surplus, and the strangest part of it to me was the fact that the flowers did not appear to be more abundant than usual, but they were overflowing with nectar, and it is this fact that makes me so sanguine that good yields of honey may be looked for in the near future. There must be a change for the better, as it could hardly be worse.

The best yield of honey I ever had was from what I firmly believed to be a pure Cyprian colony. I secured from it 232 pounds of surplus extracted honey, while the remainder of the apiary of some eighty colonies only averaged forty pounds. In the fall of that year, or spring following, Friend Doolittle wrote asking if I would exchange one of my best queens for one of his, and I sent him the queen from the colony that produced the 232 pounds of honey; but he wrote that on breeding from her she proved to be a hybrid. Her bees were regularly and well marked, and if today every queen in those colonies run for honey were to prove as good, I would not exchange them for any I ever saw.

The largest yield of honey I ever had from one single apiary was from thirty-five colonies, spring count, increased to seventy, and secured 5,500 pounds comb honey, and 1,000 pounds extracted. This is not an extraordinary yield by any means, but was very good for my locality, and could I do as well in proportion to the number of colonies, every year, I would be well satisfied.

Not having the data to hand, I wrote something as follows to a number of prominent bee-keepers, and received among others the following which speak for themselves and greatly encourage me to believe that they will

again rejoice in nature's favors to an equal or greater extent:

"Will you kindly answer the two questions given below

1st: How large a yield of honey (comb or extracted) have you ever secured from one colony in one season?

2d: What was the largest amount of honey you ever secured in one season, and the number of colonies and race of bees that gathered it?"

Friend Hammond, of Malone, Iowa, writes:

"The largest amount of comb honey I ever secured from one colony was 188 pounds in well-filled sections, and a lot of unfinished ones that were not counted. The bees were leather-colored Italians. The largest yield of extracted honey from one colony, that were given more starters of foundation in the super, and had to build their own comb, was 267 pounds. This honey was gathered from white clover. The average yield throughout the apiary was 120 pounds."

Mrs. L. C. Axtell, of Roseville, Ills., contributes the following:

"The season of 1882 we received 39,000 pounds of honey mostly comb, in first-class sections, from 180 colonies, and increased to 295 colonies, being a little over 216 $\frac{2}{3}$  pounds per colony. Our greatest yield from one colony (a good hybrid) was about 300 pounds. Of the 39,000 pounds only 500 was extracted. The honey netted us in Chicago 12 $\frac{1}{2}$ c per pound."

The following from H. W. Funk, of Bloomington, Ills., is rather interesting from the fact that it shows the year 1882, which was an exceedingly wet one, to have been an exceptionally good one throughout Illinois, especially the middle portion of the state:

"I got in the year 1882 from seventy-five colonies, 15,593 pounds of honey. One-half or more was comb of the finest quality, and averaged 207 pounds per colony. It rained so much that there was not much honey from white clover gathered, but heartsease covered every field, as it was so wet that many fields were not planted to any crop. Since then nearly all the farms have been tiled and heartsease and clover are both scarce, and the outlook not encouraging."

Friend Bittenbender, of Knoxville, Iowa, sends the following:

"The largest yield from one colony, spring count, was 208 pounds comb honey. Extracted honey, 3,400 pounds from 45 colonies. Hybrid bees."

Frank Coverdale, Delmar, Iowa, says:

"I really do not know what my best colony gathered, but my best yield was in 1886, of 208 pounds to the colony, half comb, half extracted. Bees were blacks, hybrids and Italians. The Eastern Iowa Bee-Keepers' Association shows an average in 1889 of 212 pounds per colony, nearly all comb."

Those old veterans in bee-keeping, the Dadants, of Hamilton, Ills., kindly give the following:

"The largest crop of honey we have ever harvested was harvested in 1880, if we remember right, from about 400 colonies of bees, mostly Italians, with some hybrids and a few blacks—45,000 pounds. We cannot give the largest amount harvested by 1 colony for the reason that during our best seasons we were too busy to waste time weighing the crop of a part of the hives, and every time that we have started weighing the crop harvested by one single colony, some other colony managed to get far ahead of this. If the honey was all harvested at once, it would be but little trouble to weigh the best, but we have extracted as many as five times from one apiary in one season, and we believe that during that season some colonies yielded as much as 400 pounds and perhaps more."

L. W. Baldwin, Independence, Mo., writes:

"I will say that the best report from one colony that I remember was 150 pounds of comb honey. The bees were pure Italians. The best crop I ever had was in 1886, when I took 12,000 pounds of one-pound sections from 150 colonies. It was nearly all from white clover, and was very fine. The bees were nearly all pure Italians. Myself and sons have now about 600 colonies in winter quarters."

The following from Friend Heddon, Dowagiac, Michigan, speaks for itself:

"I am unable to answer your favor further than to say that I once took 410 pounds of surplus from one colony not fussed with in any way. The hive had no movable frames at all; 362 pounds of the surplus was comb and 48 wax extracted honey. This was about twenty-five years ago, when we had fresh moisture at the roots of the basswood trees. From 48 colonies that season the yield was

very large, (see back number of American Bee Journal). One year I began an out-apiary with 102 colonies; increased to 225. I kept no account of the number of pounds, but I did of the cash I received from it, and it was \$1,070.00. It cost me less than \$70 for labor. I once hived a full prime swarm, onto ten L-frames, during a copious basswood flow. After three days I opened the brood chamber (all there was to the hive) to see how the queen was laying. I found about fifty square inches of comb in the center of one frame, empty and shining, but not an egg in any cell. All the rest was solid with basswood honey, and partly sealed over. I threw all out clean and got about seventy pounds of honey. Next day at precisely the same hour, (10:30 a m.) I opened the hive to see if my queen was then laying, and I found so much honey (all unsealed and three-fourths ripe) that I threw it all out and weighed it. It tipped the scale-beam at 29 pounds and 13 ounces—29 13-16 pounds. This is my best record. One year I got \$800 from sixteen colonies and increased them to thirty-three. I sold the honey (it was extracted) in glass jars, and it netted me thirty-two cents a pound. These were the days when nature favored us. Bees paid then."

This from away up in Minnesota from our genial friend, B. Taylor:

"I will say in regard to Question 1 that the largest yield from a single colony in comb honey was 265 pounds of marketable honey. There were some unfinished sections that were not counted. The bees did not swarm, and were first-cross Italian hybrids. The best yield I ever had from a whole yard was 143 pounds per colony from forty-five colonies, spring count. This was finished comb honey, and there was a quantity of unfinished that was not weighed. The bees were blacks, with a slight admixture of Italian, but mostly pure blacks. They were increased to seventy colonies."

How is this from Friend Doolittle?:

"Largest yield of comb honey from one colony, 309 pounds. Largest yield of extracted honey from one colony in one season, 566 pounds. Largest crop in one season, 11,492 pounds from sixty-nine colonies; mostly comb; from choice Italian bees."

Dr. C. C. Miller, Marengo, Ills., supplies the following brief note:

"My largest yield was in 1882—16,549 pounds from 172 colonies, comb honey. I don't know the largest yield per colony, but never had anything extraordinary. I'm not in a good

region, having nothing but clover for surplus."

Here is a statement from Lovel Harrison, Peoria, Ills.:

"Mrs. H. is in Atlanta, Ga., and after this week her address will be St. Andrew's Bay, Fla. In answer to your question, will say that best yield from one colony was 200 lbs, Italian bees. Largest yield in one year, 5,000 pounds, mostly comb, from eighty colonies, spring count; increased to 120 colonies. Italian bees."

I have purposely excluded reports from Florida, Arizona, Utah, Colorado, California, and the eastern states. The PROGRESSIVE is a western paper, and it is mainly for bee-keepers in the west (but not the far west) that I am trying to write this article. We can hardly conceive of circumstances under which extracted honey would bring 32 to 40 cents, and comb honey 50 cents per pound. Those days are gone forever, and the possibilities of realizing \$800 from the product of sixteen colonies in one season, as given by Friend Heddon, is not for us; but that there will be good old-fashioned seasons again, for us of the middle western states, I have no more doubt than I have of my existence; and, as in other lines of business, when, owing to low prices, bad seasons, and gloomy outlook, so many are turning their attention to other things, now is the very time to hold on. Give more attention than ever to every detail; see that all things are in the best possible order, and be ready to take advantage of the opportunities for success, as they present themselves.

I would have been glad to have given reports from Arkansas and the Indian Territory. If any of our bee-keeping friends down there have any good reports of past years to make, I am sure the editor of the PROGRESSIVE will gladly give them room. So let us hear from you all, and if only one can give us a reliable report of larger yields than those given here, we will all be glad to hear it.

Belleville, Ills.

## PASTIME FOR THE BEE-KEEPER IN WINTER.

REV. C. W. GIESE.

FOR the winter months there is very little for the bee-keeper to do with his bees. The bees have gone into winter quarters, and are quietly clustered in the hive. Their vitality has been reduced to a minimum. Absolute quietness is what they need in this state, and the bee-keeper should do all in his power to keep everything quiet around them. If they are disturbed, some bees will get uneasy and leave the cluster of bees, and, if wintering on summer stands, will be chilled to death; or they will eat more honey than necessary. In the last case, diarrhea is the consequence, as the bees have no opportunity to evacuate their intestines, they being either shut up in the cellar, or the cold winter does not permit them to fly. It is the aim of the bee-keeper to winter his bees well, and have strong colonies in spring—therefore we must not disturb them in their winter quarters, or let them be disturbed by heavy pounding, cats and mice in the cellar, or by the rays of the sun, cold of winter, etc.

Sometimes a colony of bees has its stand near by a tree or some shrub. If the wind is very strong, you will see the lower branches striking the hive. Take your saw and cut off the limb. Watch your colonies and keep everything away that will disturb them. If severe cold sets in, the wind blows, or the snow dances merrily in the air, the entrance of the hive should be protected by some board. I do not mean to close the entrance, but simply lean a board the length of the entrance slanting to the body of the hive. We all know the snow permits the circulation of the air, but when the snow melts and freezes to ice in front of the entrance, the air cannot enter into the hives. The bees get uneasy because they lack the necessary air to live on. If you put your ear to the hive you will hear a low hum of the bees—a good

sign of their welfare. But if you hear a buzz, something surely is not right. You ought to find out the cause of their uneasiness and remove it as soon as possible.

If everything is kept quiet round the hives, the bees eat very little honey. Every bee-keeper before he goes into winter quarters examines his hives to see if they have enough stores to winter on. This being the case, he knows the bees will not starve to death. But a bee-keeper should also know that the bees consume more honey towards spring when they begin to rear brood. Now a bee-keeper should not allow his bees to hang between life and death. More food is better than not enough. If the bees have been in winter quarters very long, you should allow them on a nice warm spring day to fly and free their intestines, and avoid all danger of diarrhea.

In many bee-books the bee-keeper is advised, since he has very little to do among his bees, to turn his attention to the making of hives, etc. But I say, Don't! Every man is not master of all trades, but often a jack of all trades. It takes a good carpenter to make a hive that will fill all the requirements of a modern hive. Just imagine how hard you have been working at a hive or frames, or something else, and when it comes to the nailing it up, you have made a mistake here and there—in an inch or a half—and the whole thing is spoiled. When I went into the bee business I thought that a hive was cheaper made than bought. You see I read that big chapter in Root's book on making Simplicity hives. Well, I say to myself, what are all those bevels for? I came to the conclusion that the Roots make the making of a bee hive so complicated to keep hands away from it. Am I right? So I went to making hives without bevels. I bought good material, etc. Made a good hive. But how about the cost? Cost me more

than I could buy it from the factory for. Therefore I advise the bee-keeper, unless he is a Leahy or Root, to buy his hives from the factory.

Save yourself trouble and expense, (I have not regretted it), by dealing with the venerable bee-keeper and hive-maker. Mr. R. B. Leahy. He has treated me fair and square. Yes, he is what we call a self-made man. He has seen hard times, and these undoubtedly have taught him to treat all customers like he wishes to be treated himself. Try him, and you will buy from him again.

But there is something else a bee-keeper can do during these winter months. He can study the bee literature. Some men embark in bee-keeping with very little knowledge of the business, and don't care to learn from bee-books and bee-papers. These men can be compared with the sailor having no compass. They are tossed hither and thither by the waves of the bee-ocean, and know not how to guide their ship. Yes, they would like to land on the golden shore of bee-dom, but do not know how. They see other bee-ships sailing by with unfolded sails, see them land on the golden shore, but they themselves do not stop to learn how. At last their ship drifts upon a rock or sand-bank, and but the masts, etc., show that here and there a vessel was wrecked. Look at the yard of some out-of-the-business bee-keeper, and you will find masts, planks, etc., in the form of bee-hives, smokers, etc. Bee-keeping is a science. This thing must be studied. Read, read, read! Read once, read twice, read again and again! And be assured you will profit by it. Visit your bee-keeping friends, and have a little chat with them. By exchanging opinions, much can be learned. Experience is the best teacher, and practice makes perfect.

Little Rock, Mo.

## SIZE OF HIVES.

DR. C. C. MILLER.

ONE of the troubles of my bee-keeping life is making experiments and changes on too large a scale. Some new plan comes up that I feel very sanguine about, and at once I go into it on a large scale, only to find out that I was mistaken in the matter. Seems I might learn after years of experience that not one in ten of my supposed improvements pan out what I expected, but I don't. So when the tide began to run in favor of eight-frame hives, instead of trying side by side a certain number of eight-framers with the ten-framers I had been using for years. I deliberately cut down most of my ten-frame hives and made them into eight-framers. Those that were not cut down were simply set to one side, and nothing but the eight-framers used. Now if I had kept the two running side by side, I would probably be able to speak with some authority as to the relative merits of the two. For the first time in years, I peopled eight ten-framers the past season.

I frankly confess that I don't know whether it is better for me to have the larger or the smaller hive. I'd give a good deal to know. The utter failure of the honey crop in the years 1894 and 1895 has left me in more dense ignorance than I otherwise would have been. I have read with the most intense interest all that has been said in the lively discussion that has been going on, in Gleanings particularly, but which has not confined itself to that. If any of the PROGRESSIVE family have light on the subject that they have so far kept hidden, I for one will be exceedingly glad to receive it.

I know that I have not had as large crops of honey with eight-framers as I formerly got with larger hives, but I've no way of telling whether that's all the

fault of the season or not. One thing I do know—I have much more swarming with the smaller hives, and I'm very confident that the size of the hive is mainly responsible for the increased swarming. I think that is the general experience. I feel somewhat envious of the Dadants when they tell me that only three to five of their colonies swarm out of a hundred. But they have the Quinby frame, and when their hives are filled they are really equivalent in size to hives containing twelve Langstroth frames.

It is quite generally understood, I think, that for comb honey a smaller hive must be used than for extracted, and it may be true, but in the case of the Dadants it hardly looks so. They put in their supers shallow frames for extracting, and when these frames are filled with honey, instead of extracting them they merely tier up and add more frames, no extracting being done till the close of the season. When told that it's a different thing to give full combs as compared with sections in which the combs must be built, they may ask, "But where's the difference between sections and extracting combs if the extracting combs, as they have done in many cases with us, contain nothing but foundation?" Moreover, they say they formerly run for comb honey, and these large hives gave more surplus side by side with the smaller ones.

On the other hand I read in foreign journals of large hives which give a less harvest because the bees are occupied in filling up the hive with bees when colonies with the smaller hives are filling up with honey. Some say in reply to that, that these large hives must have a correspondingly large population early in the season, and then there will be a harvest to correspond, but if the colony be weak in the early part of the year, they will go on expanding at the time of the heaviest harvest.

One thing in favor of the smaller hives makes me very loth to make another change, and that is the conveni-



ience of handling them. Even if both were of the same weight, it's easier to carry the same weight in a more condensed form—less arm's length business about it—but I found this fall that the ten-framers averaged ten to twenty per cent in weight more than the eight-framers. In reality they are eleven-framers, for they were made to hold ten frames spaced  $1\frac{1}{2}$  inches apart, but by spacing  $1\frac{3}{4}$  I had no difficulty in getting in eleven frames. Especially does one feel the difference when it comes to getting them in and out of a cellar, or when hauling to or from an out-apiary. If there's only a trifle difference in the harvest stored, I'd rather have a little less and not break my back quite so often.

The past season I put a second story of combs under, after the first one was full. I did this, partly to have the empty combs taken care of, for I know of no better way to preserve them from the depredations of the wax-worm, and partly to let the queen have more room if she wanted it. I found in many cases the queens occupied ten, eleven, twelve, or more frames. If a queen will occupy more than eight combs before the time of harvest, it seems to me she ought to have them. Whether they should be left during the time of harvest is another question.

I don't want to use bigger hives if I can help it, and after weighing the matter I think I'll try some of my colonies next season something after this style: In the spring, as soon as the eight frames are well occupied, or sooner, I'll put a story of combs under and let the bees work down into it if they want to. Then when it comes time for the harvest, I'll leave some of them with the two stories, and some I'll reduce to one story. As soon as supers are taken off they'll get the second story again—I mean those that were reduced to one story—so that if there should be an unusual fall yield as there

was this year the queen will not be crowded. Before the first of October, or about that time, I'll take away the extra story so as to have only one story to handle fall and spring. In the meantime, as I said before, I'm ready for all the light I can get.

Marengo, Ills.

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## LIQUEFYING HONEY.

R. C. AIKIN.

OUR honey candies very quickly, two to three weeks from extracting finding it solid. Candying so quickly, it is out of the question to get it to market before it becomes hard. I have seriously considered the idea of suitable retail packages—very cheap ones—in which the honey could be placed when extracted and sold in the candied state. To do this the package must be CHEAP and crated as canned fruits, etc., and when it reaches the consumer, the package thrown away. It is well enough for fancy goods to be put up in fancy packages, such as glass; but I see no reason why our supply dealers cannot arrange to give us a cheap retail package that we can put up honey as other sweets are put up. Fancy groceries are frequently put up in fancy packages that sell ONLY to the wealthy and those who can afford the luxuries; and so long as we put up honey in glass or other costly package, it will never come into general use by the masses.

Not having yet found the desired package, I am still under the necessity of liquifying and getting the goods to the consumer by the expensive methods. This has led me to make some experiments in the matter of liquifying. It is impossible to know just when we will have an order for honey, or in what shape it will be wanted. I

try to have a little melted at all times to supply calls for a few pounds; but I dare not liquify any great amount at one time lest it again granulates and I have to do the work over.

Last March I had a call for about one thousand pounds in three and five-pound pails. I had previously put a lot into pails, but for some reason they did not go out till candied again. To set these pails in water, and so liquify, would be a big job; and since the pails were all painted and lettered, it would mar their appearance. My solar wax extractor is six feet square, and from one to three feet high in the clear. Besides this it has a furnace underneath by which it can be heated quite hot with a very little fire. In this solar I put about one thousand pounds of honey in pails, piling the pails one on top of another. With a little fire below, and the sun above, I melted this honey in two days. I have since melted with the sun alone, and if the pails are NOT PILED UP, but left so the sun can shine directly on each, they will liquify nicely in one day if the sun is strong. I have also liquified in the oven of the kitchen stove, though the oven will get too hot with an ordinary fire.

My experiments have proven that honey can very easily and successfully be liquified by dry heat, and without any very complicated fixtures. Jelly glasses, jars, bottles, pails or any kind of vessel, labels and all, may be put into an oven or hot chamber and liquified without damage. I see no reason why we may not have a cheap sealing retail package, the honey put into it from the extractor, and never again opened till it is wanted for the table. The hot chamber can be used by large producers and by commission houses to melt for those who so desire it; but I see no reason why the near future may not see the consumer doing his own liquifying, having printed instructions with each

can. With such a plan, the honey could be put into shape for the retail trade at once upon extracting, the packages put into a hot air chamber if desired to be kept liquid, or there restored again to liquid state when marketed.

Honey packs so closely that a very small chamber will hold thousands, even in retail packages. Of course every small producer cannot build such a place, but any wholesale producer whose honey candies quickly, and who must melt before using, can well afford to build a brick, or stone, or even iron, oven, in which to melt. Dry heat, when it can be regulated, is the best and cheapest. A room five feet square and seven feet high in the clear, will hold over seven thousand pounds in sixty-pound cans. With a thin metal floor and hollow walls with fire applied directly in these spaces by a simple little furnace, or the room heated directly by steam radiators, the whole seven thousand pounds can be quickly melted. Steam radiators would perhaps be the cheapest where there is a steam plant already in use; but if built for the liquifying only, the furnace and fire are much cheaper and very good.

The lowest point of heat necessary I do not yet know; but a little above 100 degrees F. will do the work, though taking more time. Wax melts at 145, and honey will liquify quite rapidly at 140. I think that 120 to 130 degrees will melt REASONABLY RAPIDLY and not in any perceptible degree change either flavor or color. A little above the temperature at which wax melts will damage both color and flavor somewhat. I have not been able to test the matter, but my opinion is that honey kept at 100 to 110 degrees will not candy at all, or at least will not form more than a few granules, while it will get thicker and better.

Loveland, Colo.

## SMALL HIVES.

G. M. DOOLITTLE.

WHEN I first commenced bee-keeping I was greatly benefited by the writings of E. Gallup, M. Quinby, L. L. Langstroth, Adam Grimm, and many others, for by their writings I learned my A B C in bee culture. My first year of bee keeping resulted in twelve pounds of surplus box or comb honey and one swarm, from the two I bought to commence with in the spring. The next season I obtained about twenty-five pounds surplus from each hive I had in the spring, on an average. The next season I conceived the idea that more honey might be obtained by making my hives smaller, as regards the brood chamber, than were those then in use, so that year I placed dummies in a part of my hives, to take the place of three frames, or one-fourth of the room, as the hive I had been using held twelve Gallup frames. The hives thus contracted gave me a much larger yield of surplus honey than did the others left as I had formerly used them, so in the spring of the fourth season the larger part of my hives had dummies in them, and when the end of the season came I chronicled an average of eighty pounds of box honey, as the average surplus for each colony I had in the spring. During these four years I had studied, read and practiced all my wakeful hours, about the bees, for I never spent an hour in my life in work pertaining to bee culture without its being a real pleasure to me. Many a night have I laid awake from one to three hours, planning how to accomplish some result I desired to achieve in regard to the practical part of apiculture. Although I had scarcely the advantage of a common school education, and was not versed in either

grammar or writing for publication, I felt that I ought to write for the bee papers, thereby adding the little I might discover from time to time, to the general fund of knowledge, thus helping others what I could, to pay in a small measure the debt of gratitude I owed for the instruction I had gained from the writing of others. So I began to write, and as the editor kindly fixed up my articles so that they were presentable I was encouraged to keep on, and to day finds me still scribbling away, trying to tell what I know concerning practical bee keeping. But in this matter of small hives some seem to think that Doolittle is not helping the bee fraternity much, for, say they, "better results can be secured with large brood chambers." Well, if such as say this are right, I made a mistake in those trials made years ago, and many others are making the same mistake today, for the larger part of our successful comb honey producers are today using small brood chambers; some even smaller than I use. But as the reports of those using these small brood chambers are always larger on an average, than those who recommend large hives, I conclude that I have not made a mistake, but that those who still stick to the large hives of our fathers are the ones who are making a mistake. What is a brood chamber for? My answer would be, for the purpose of raising as many bees as possible for working in the honey season, and as few at all other times of year as is consistent with accomplishing this object. The main secret of successful comb honey production is the getting of the combs in the brood chamber literally full of brood before the honey harvest, thus securing a full force of workers ready for the field just when they are needed. What man is there who hires a lot of hands to hoe potatoes before the potatoes are up? Not one; but they wait till the potatoes are ready

to hoe, and then hire the help. Just so we want our bees at the right time to have them profitable. A hive full of bees in March is of no more use than a field full of men to hoe potatoes would be at that season of the year; for May and June is the time we hoe potatoes in this latitude. Again, if we do not have the brood and bees in time for the honey harvest, all the extra powers of the queen are spent in vain, for it would be like employing a lot of hands to hoe potatoes in October, after they were all ripe and dug. Once more: If the brood chamber is not full of brood when the honey harvest commences the bees will store their first honey in the brood combs instead of going at once into the surplus sections, and if a start is thus made in the body of a large hive, the bees will idle away their time to a greater or less extent, as they are then loth to work in the sections at all, preferring rather to store in the comb already built which is near the brood, rather than go farther away over sealed honey to build new comb or draw out comb foundation. Enough is as good as a feast; and so from twenty to twenty-five pounds of honey, (according to where the bees are wintered,) in the brood chamber the first of October, is just as good as fifty pounds, and as a rule I have twenty-five pounds in my small brood chamber, while with the large ones the average will be fifty pounds; and I have already shown why the twenty-five pounds is far more profitable in the sections than in the brood chamber, aside from its selling value. Of course I have to look after each hive in the fall, and equalize the stores so that all have the desired amount, which would not have to be done with the large hives, for the lightest of these would doubtless have the desired amount, but the gain I make far more than over balances this, in my estimation. If there is not enough honey in all of the

hives to make the desired average, as has been the case in one or two seasons, I double my colonies down to where there is enough, so as to make the bees self supporting. If I can impress upon the minds of the readers the importance of securing plenty of bees in just the right time for the honey harvest, and that the hive should be full of brood at this time, I shall not have written in vain.

Borodino, N. Y.

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#### BILL KULE'S PAPER.

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**M**ISTER PRINTER—Since I last wrote to you, I hev not ritten fure ure leetle paper since, but we hev been gettin along like unto greesed wheels in bee culture.

We hev been trying sum uv the five all over yeller banded bees. They are as pritty as the ole woman's silk parasol, an do make my I's worter like unto dimonds, specially when I don't wear no vale.

Yeller bees ar a honey-bug, an a bate fur intellergent peple to get bit with. The feller who sells yeller bees hed better sell rear gards to go with em. Our yeller bees are so kross in the grane that we hev to give 'em taffy afore we kin handle 'em. The ole woman kant be gone to the wood pile long enough to chop an armfull uv wood without sum uv them yeller all around bees git arter her. (The honey what they make looks black enough to hev been shot out uv my Winchester in the war uv Bunker Hill at one uv Gen. Sheridan's canon-cockeys who called me a liar).

Eddie sed the tother day he was goin to superceede the yeller five-banded queens fur sum he is goin to breed. I

doant understand his big words. but if I hed my way 'tirely, I would decapivate



"If I hed my way 'tirely, I would decapivate 'em with a pare of sheers."

'em with a pare of sheers. But he sed he wuz goin to try sum he wuz thinkin uv breedin with ten bands on. He sed he wuz goin to roll up a peace uv isin-glass an let the bands run down on it. Eddie's got no nicks in him, an when he gits an idee, it doant stay long till he puts it to its place.

The honey seezon has been elegant hear. Eddie gits half uv the money what he makes, an he has bot hissself a new suit of cloze, an a cocked stovepipe hat with a krushed krown. He sed he wuz goin to by hissself a roomatic tired safety with sum uv his honey money.

Sed I, Boy, we ar in perfect safety, fur I've lived here morn 20 yeers, an hev not been hurt—not even by the roomatic tired pains you speak uv, an I doant see eny use uv your buyin em patent safety cures. I arterward found the roomatic safety wuz the side wheels uv, ur the wheels uv one side uv a baby

carriage. I speck I'll hev to let him git it, fur I've an idee he's goin to make a presint to his sister. She has an ole un, an I speck they kan make a good un out uv the peaces. Eddie hez two I's on bizness at once; an when he bys a thing, he noze which side uv his bis- kit has honey on, as the darkie sez.

Sumbody sent us a queen in a candy box. One end uv it wuz full uv bees, an the tother wuz full uv candy. We pulled the cover off an put it up agin the hole the bees go into the hive at, an the bees took her out by the neck an killed her. The sender will pleze send us too er 3 more if he wants em tride.

I'm pirty ole, but, by jiggers! Eddie put the halter on me one day when he maid quean cells an put eggs in an sum stuff fur the leetle queans to eat when they broak the shell. I tole Eddie, sed I, How do you no an egg that ull hatch a quean frum one that ull hatch a worker or a droan?

Oh, Father, that is ezy, he sed, an that wuz all he sed.

Well, sed I, if it's so crackin ezy to tell what an egg ull hatch, sposin you go down to the hen house an pick your mother a setten uv eggs what ull hatch roosters, an another settin what ull hatch pullets, fur your sister.

I hed him. He tride to splain, but I'd caught him.

But, Mr. Printer, what do you think? Why, when em are cells hatched, they all wuz queans, but I think the leetle bees put sum more eggs in the cells. I speck sum day they ull git so cientific as to make hens' eggs hatch alligators, er sum other big feathered bird like un- to that.

I allers thot bee keepers shoed hev a song to sing when they git enthused. This is what my sun sings, which I think ull smoothe the billows uv an akin heart:

She's my honey, I'm her comb,  
She's my beeswax, I'm her drone;  
Soon we'll swarm, never to kluster,  
Little Kizie Florin is a big heart-buster.

An now, Mister Printer, I hev sum very sad news to tell you. Writin that are song jist made me think uv it: Ed-die's goin to git married to that Kizie Florin he sings so tear-be-flowingly about. I talked to him a siderable about the foolishness uv marryin strange gurls, an he sobbes miserable:

He sez, sed he: Father, no one sed sumthin agin ure gittin married, Ile bet.

Boy, sez I, but you no as well as I do that I married your grandmother's darter.

Ile tell you I kan see a siderable difference atwixt that an marryin a strange gurl. Even you, Mr. Printer, with all uv ure knoledge uv bees an printin, would not uv thot uv marryin anybody but ure mother-in-law's darter, would you?

Bee kulture itself is a good bizness, but if the bees wer like unto the people uv this world—spendin all uv thare time gittin married, an tryin to git married—they would eat up all uv thare honey on weddin celebrations an universities, an leave us without sum honey, as we do our crediters without sum money.

Bogville, Ark.

### WILL WARD MITCHELL.

The readers of the PROGRESSIVE are all familiar with the name of Will Ward Mitchell, whose poems have so often appeared in its pages, and we present this month a picture of the young Missouri poet, and reproduce three of his poems which lately appeared in a book mentioned in the newspaper clipping below.

#### A MEMORY.

One night our pastor had a learned discourse  
on

The subject, "Christian Unity and Love,"  
It left my mind the moment he was gone—  
For some deep spell my senses seemed to  
move.

I thought me of a summer long ago,

When you and I were standing in a lane  
Where murmuring breezes used to softly blow:  
I seemed to hear your sweet goodbye again.

Your hand clasped mine; I felt its tender  
thrill;

My heart was aching with an awful pain;  
I heard you sadly falter, "Goodbye, Will,"  
And thus we parted, ne'er to meet again.

We were good friends; you were so dear to me;  
We loved each other as but few men do:  
A love like ours survives eternity,  
Because no angel love can be more true.

And when you left me on that summer day,  
To seek your fortune in a distant land,  
I wondered how the world could be so gay,  
When I had for the last time held your hand.

Yes, for the last time—saddest words of all—  
The sweetest ever written, sung, or said;  
Ofttimes the blinding bitter tears will fall—  
For this dear friend I loved so well, is dead.

:O:

#### OLD WINTER IS DEAD.

Why do you sing? I asked of the bird  
That rocked in the branches o'erhead;  
A note of music his wee breast stirred:  
Because old winter is dead.

Why do you bloom? I asked the flower  
Whose delicate scent was shed;  
It smiled as it gleamed in its fairy bower:  
Because old winter is dead.

Why do you flow so musically?  
I asked of the brook as it sped  
On its way to bathe in the beautiful sea:  
Because old winter is dead.

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Correspondence solicited. We have been  
twenty years at above location, and refer to

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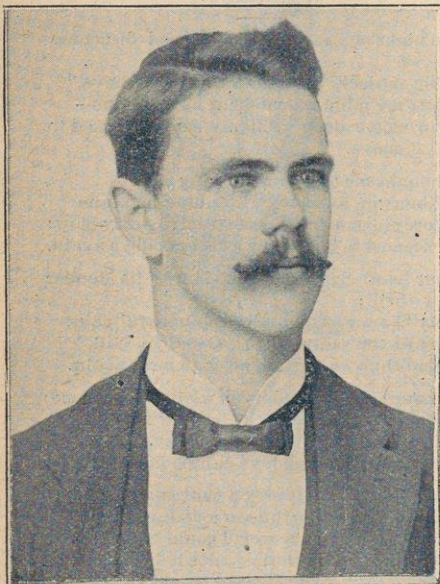
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Why is your smile so blue and so bright?  
I asked of the sky, and a still voice said,  
Soft as the dew on the bosom of night:  
Because old winter is dead.

Why do you laugh? I asked a child,  
As I stroked its golden head;  
With eagerness it answering smiled:  
Because old winter is dead.

Why do you weep? I asked a man,  
Whose days on earth were almost sped:  
He sobbed reply while tear-drops ran:  
Because old winter is dead.



WILL WARD MITCHELL.

A FRIEND TO LOVE.

A friend to love is one who shows—  
When trouble comes, his friendship true;  
Who shares alike one's joys and woes,  
And such a friend I've had in you.

When roses bloom about my path,  
Your kindly face is ever near;  
When dark adversity's keen wrath  
Blows fiercely, still your voice I hear.

When words of scorn and envy fall,  
From lips I've held most staunch and true,  
Although you boast no love at all,  
A loyal friend I know in you.

Your lips will speak in my defence,  
Your hand in friendship clasp my own;  
It needs no better evidence  
Than in that hearty clasp is shown.

You never prate of deathless love,  
Yet love I see in your blue eye;  
Your actions its devotion prove,  
Upon such love can one rely.

And realizing this deep love,  
Which glads the heart when grief is rife,  
I wish (all other things above)  
To be your friend through all my life.

We append the following clipping  
from the Higginsville Acme:

"This young man has recently come into prominence as one of the leading poets of America. In 'Poetical Quotations,' by Thos. W. Harringshaw, published by the American Publishing Association, of Chicago, they quote from him under the headings, 'Parted' and 'Friendship,' and in a work by the same author of nearly 1,300 pages entitled 'Poets of America,' his poems amounting to over a page are reproduced, among them one entitled 'A Memory' which is published in Acme today.

Mr. Mitchell has been raised from boyhood within the limits of Higginsville. Not one young man in a thousand ever takes such a decided stand against the reverses and trials of the world, in order to attain a general knowledge of ancient and modern history, and of current events, as Mr. Mitchell has done. He was born near Lexington, Mo., Dec. 1, 1870, only had advantages of a district school education, and being a poor boy, his work and attainments since have been by his own individual efforts. He has labored at his trade as a printer, invested such of his earnings as were not required in a living, in books, his selections being by standard and popular authors, until he has already accumulated a valuable library, of which he has made, and continues to make good use. He is a Christian young man, his thoughts and desires appearing to trend high and upward to noble and pure planes. Such zeal for the good is so seldom evidenced among young men of the present day that we are pleased to add our testimony to that of the national publishers who have thought him so worthy, and as a young man whose example is eminently worthy of emulation, we wish him God speed in his noble efforts."

The poems herewith published are among Mr. Mitchell's earliest productions. He is the author of a hundred or more poems, one of his last being a birthday ode of over one thousand verses. Only some fifty of his poems have been published, he having lately issued in pamphlet form a volume of verse under the caption of "Since Forrest Died, and Other Rhymes."

CHRISTMAS GREETINGS.

DEAR SOMNAMBULIST—

I surely could not do less than express my hearty thanks for so generous an invitation to Christmas dinner with you, and cannot this moment imagine a pleasure I would more profoundly enjoy. I confess to a marked weakness for such repasts with convivial friends, and a tender, well-roasted American bird, and the various "fixin's" that good Missouri wives know so well how daintily to prepare. I speak from extended and delightful experience. To think of the luscious baked sweet 'taters, pumpkin pies, sweet cider, and that other kind, and—and—. But there! I must not tantalize my appetite in this cruel manner. My digestive organs protest at the levity that, alas! must finally end in abject failure to gratify. But I'll think of you on that festive day, and repeat with Tiny Tim, (Dickens' most pathetic character), "God bless us, every one."

But in gently and gratefully declining the first invitation, please do not understand me to refuse your generous offer of apple butter or Grimes' golden. No indeedy! (Ah, beg pardon! On a second reading, I find myself at fault. I cannot really construe your language as a peremptory offer, And as you do not vigorously insist, why—I shan't expect the sweet concoction with which to o'erspread thick slices of fresh-baked bread—as of yore).

Many thanks, too, for the statistics on the apple crop. 3,864,000 barrels! Geeminy! Who'd a thunk it? Nine years' residence in the good old state of Missouri fully confirmed me in the conviction that there are large quantities of good and beautiful products beside its lovely women, but I confess I did not realize the extent of its bountiful supply.

If "Printer's Devil" will come see me, I'll fill him up full at the first grub

counter we come to. Invitation perpetual.

Wishing you the compliments of the joyful season, I am your

EMM DEE.

100 State St., Chicago.

**WANTED!**

10,000 pounds of BEESWAX, for Cash. Address,

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WANTED.

Position in an apiary, by a young man, strong, industrious, and well-qualified to take care of bees. Am also a carpenter, and if you are contemplating adding to your apiary this winter, you would do well to write me. Salary reasonable. Address,

A. B. GREEMORE, De Soto, Mo.

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Please mention th "Progressive."



## WINTERING BEES IN THE SOUTHWEST.

### LITTLE BEE.

A GOOD, comfortable and dry hive, with plenty of stores and a moderately-sized colony of bees, is all we need in this locality to carry the bees through the winter. Still it is better to give them some protection on top. About the middle of October, or as soon thereafter as I can get to it, I look over my bees and carefully examine them so as to ascertain what amount of honey each hive contains, and keep a memoranda of the amount of syrup or honey each colony may need to carry it until spring. Having done this, I provide them with the proper amount as it may be. At the same time I also see that each colony has a good laying queen. If I find any queenless, or colonies with a drone-laying queen, they are broken up and united with others. I also note carefully the size of each colony, and contract or enlarge the brood-chamber accordingly. I expect to have all colonies in shape to winter by the first of November. By December 1, I go over the apiary and put on empty supers, and fill them with dry leaves, shavings, or short thin hay; also placing a few sticks over the top of the frames, so as to admit the bees to pass over the frames. I also take off the old burlap, and replace it with a new one, as the old ones are generally gummed up with propolis. Now then, I contract the entrance to about  $1\frac{1}{2}$  or 2 inches, according to the size of each colony. I use a cushion on top of the frames. Then I let them alone until the spring opens.

I have a few swarms which issued about the middle of September, and they have gathered sufficient honey to winter on. Up to this date (Dec. 9) our bees have had a fly every day. During mid-day they are working on the mis-

tletoe, of which there is quite a lot along the Gila river. We have had a frost every night since November, sometimes cold enough to freeze a thin sheet of ice on the water outdoors. During the day the weather is very pleasant, and a person is quite comfortable in shirt-sleeves. We have sunshine every day in the year. There has been snow in the mountains, about fifteen and twenty miles from this apiary, since November.

While living in Southern Illinois, I wintered bees on their summer stands by allowing them plenty of honey and protecting the sides with a dummy filled with chaff and a cushion on top, with a good solid cover to cover the hive, and during the winter, after a snow, I would go out in the apiary, and with a broom and shovel would clear the entrance of the hives so as to give the bees ventilation. I have had very little loss and been quite successful. I also tried cellar wintering there, but with bad success, as the bees would not be in such good condition, or as healthy, as those wintered outdoors; besides having a good deal of labor carrying in the cellar and out again. Preparing bees in this way and keeping the inside of the hives dry, and the entrance open during the winter, a person can winter bees very successfully in Southern Illinois.

While in Iowa, I was quite successful in wintering bees in a good dry cellar; also wintering outdoors in the dovetail chaff hive. Those wintered outdoors were in better shape in spring, but the loss was greater.

In Northern Texas they will winter well outdoors if prepared like in New Mexico, while in Southern Texas no protection is needed. In California—that is, in Southern California—no particular protection is needed.

In regard to my experience, I find almost as much difference in wintering bees in different localities as I do in the securing of a honey crop in different localities. In the north, bees ought to be protected from the cold winds, to some extent, if possible.

Cliff, New Mexico.

## TEN VS. EIGHT-FRAME HIVES.

J. W. ROUSE.

THERE has been considerable discussion in the bee journals in regard to eight vs. ten-frame hives. I have always advocated the ten-frame hive, as I think the eight-frame hive too small to get the best results. I think it mistaken economy to buy eight-frame hives because they are a little less in price than a ten-frame hive, for (not accusing anyone of closeness) I am sure if they were all the same price the ten-frame hive would be called for the most.

I have never passed through a season yet but what in looking back I felt that I had not done my best with the bees. What I mean by this is, as I rear queens in connection with the production of honey, I often draw on my best colonies to help make up or feed nuclei, so that the colonies so drawn on are very much hindered in doing their best. But even with all this, my colonies that I worked for honey gave me 200 pounds of extracted honey each, spring count, and doubled in increase, this all coming from my ten-frame hives.

It is supposed that bees in an eight-frame hive will be forced into the surplus chamber sooner, but I doubt this, as they will not enter the surplus chamber to work until the honey-flow is well on, and if confined to eight frames they will not as a rule breed up as strong as in a ten-frame hive.

Then, again, with a ten-frame hive one can and should, to get the best results, use a follower-board, so as to confine the bees to only as much space in winter and early spring as needed, and more space given in the spring and early summer as needed. In fact, one can easily by the use of a follower-board make any sized hive desired up to full capacity, and the ones that are

willing and do manipulate their bees, are the most successful ones to procure honey.

With the ten-frame hive in the production of extracted honey, queen excluders are so seldom needed that I do not use them, but queen excluders are very much needed on eight-frame hives to keep the queen from going up into the surplus chamber. Then, again, with a ten-frame hive, the outside frames can be removed and follower-boards put in their place for wintering, which makes a better outdoor repository for the bees. But, I suppose, after all is said, the most of beekeepers will procure such hives as suit their fancy, which is their privilege; but for the novice looking for advice, and to start the best and right way, I would advise to start with the ten-frame hives, although at the prices made, the supply dealer is pleased to receive orders for either eight or ten-frame hives, as the ten-frames are only fifteen or twenty cents higher than eight-frame hives.

On receiving the December number of the PROGRESSIVE I was very sorry to learn of Friend S. E. Miller's demise, or, rather, quitting, as a beekeeper, but was surprised to learn of the legacy he had so kindly and generously left me. I am anxious to get those "double tier frames in the fiat." I can soak 'em like I do dried beans or apples, and they will be much larger. I hope those rabbits will be fat, as I like them best that way. Wife has been sick, but is getting better now. If I had them here now, I could stew a few for her. I wish we could have had those "knick-knacks" here for the children on Christmas; in fact, I am very fond of knick-knacks myself. I will hold Friend Miller in grateful remembrance, and hope my legacy will be shipped to me at the earliest opportunity, freight prepaid.

Mexico, Mo.

## FOR SALE.



2500 pounds A No. 1 Amber Fall Honey for sale in 60-pound cans. Two cans in a case. Price, eight cents per pound for less than 120 pounds. Seven cents per pound on all over 120 pounds. Send 2c stamp for sample. Address,

**E. T. FLANAGAN,**  
BELLEVILLE, ILLS.

POSTOFFICE BOX 783.

Please mention the "Progressive."

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## OUR LETTER BOX.

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### A WORD FROM COLORADO.

Enclosed find fifty cents to credit on subscription to the PROGRESSIVE.

What is that saying? Is it Truth, or Hope, "crushed to earth will rise again"? Well, it makes some difference, but although Hope has been crushed considerably—as far as the returns to the Colorado aspirant are concerned the past year—yet the bright hallucination and Hope for another year is big within us. Favored localities—er—er—practical bee-men—have had fine returns, but the average bee-owner has a face on him like Doolittle's old man, mouth drawn up or down to suit one's perception. As far as I can learn, fifteen pounds to the colony will about fill the bill. I have known of some apiaries that have not averaged twenty pounds of honey, that have had a number of colonies that produced exceptionally large yields. Where we notice no different conditions in the different hives, one is left to think, "Great is the mystery of beeology." Dead colonies or scalps will be numerous from now until next May. There seems to have been a general complaint of vitality of queens—so many swarms were queenless, or the parent swarm was left with no provision for a queen.

Now, Bro. Leahy, I don't write this to print; I only thought I would tell you a little of our—my—condition, so that a fellow-feeling might cause your suspenders to expand a little.

D. L. TRACY.

Denver, Colo.

I have printed the above, as it gives some light on the result of the honey crop in Colorado last season.—Ed.

:O:

### ITEMS FOR BEE-KEEPERS.

When blowing out a lamp, always turn the wick down below the top of the burner. This will prevent the oil from running up the wick and down the outside of the lamp.

To cure a bee sting, blow smoke on the part stung till it is as hot as you can well stand. Do this immediately after being stung.

To make your sash much easier to move from the hives, scallop out the ends of the top bars, thus: [We will state the idea Mr. Keech conveyed in his drawing was like the old-style Hoffman frame. We now narrow the ends of the frame down clear up to the end bar. This we think is much better than the old way of just scalloping the ends.—Ed.] You will find it to be a good thing.

To grade extracted honey, run the combs all through the extractor before uncapping, which will take out all the thin honey, and you can thus uncap the rest and have the better grade by itself.

D. E. KEECH.

Martinsville, Mo.

:O:

### MERCURY AT ZERO.

Mercury at zero this morning. Excellent sleighing. Bees seem to be doing well thus far. A happy and prosperous New Year to you.

T. F. BINGHAM.

Farwell, Mich., Dec. 11, 1895.



JANUARY

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

THE PROGRESSIVE BEE KEEPER.

A Journal devoted to Bees, Honey and Kindred Industries.

TERMS: Fifty cents per year, in advance.

R. B. LEAHY, - - - - - Editor.

A HAPPY New Year to all.

EDITOR HUTCHINSON says, "Feeding bees is one of the most neglected branches of our industry."

WITH the December 15th issue of Gleanings, "Rambler" concludes his rambles. These articles have been an attractive and pleasing feature of Gleanings for over six years.

A WRITER in one of the bee-journals has stated that the Dadants do not extract their honey until fall, leaving it

all on the hives to become well-ripened. This seems to be erroneous, as in a recent letter from the Dadants they say, "We have extracted as many as five times from one apiary in one season."

:O:

WE wish to call attention to the little typewriter shown on another page. This is a perfect machine, and will do good work—much better than many machines that cost four times as much. We know of nothing better for a nice present for the little ones, and there are many grown-up people that could use them to advantage in their correspondence.

:O:

OUR bees have all been put in their winter quarters—that is, the cellar—and those that were short of stores have a piece of candy laid over the frames. This is less trouble than feeding up on syrup, and candy can be given to the bees as long as they need it, any time during the winter. We have wintered bees many times on candy alone, but would recommend syrup for spring feeding. Colonies that are rearing brood need more water than they could obtain from candy.

:O:

ONE of Bro. Hutchinson's little ones has been quite sick for a long time. In apologizing for the Review coming so late, Mr. Hutchinson portrays the suffering of the little one as only a father can. When our dear ones are sick, our hearts are full. None can appreciate this more than they who sit by the bedside night after night, keeping that anxious watch, and pray silently for the relief of the sufferer. Mr. Hutchinson has my heartfelt sympathy, and his dear little one has my wishes for her speedy recovery.

:O:

THE following paragraph appears on page 10 in an excellent article on "Winter Pastimes for Bee-Keepers,"

by the Rev. C. W. Giese, of Little Rock:

"Save yourself trouble and expense, (I have not regretted it), by dealing with the venerable bee-keeper and hive-maker, Mr. R. B. Leahy. He has treated me fair and square. Yes, he is what we call a self-made man. He has seen hard times, and these undoubtedly have taught him to treat all customers like he wishes to be treated himself. Try him, and you will buy from him again."

My attention was not called to this until it was in type. Naturally, one feels a delicacy in letting kind expressions of just this nature appear in his own journal. Had I noticed it in time, I no doubt would have omitted it. However, it is with a sense of joy that one reads such kindly expressions. Rev. Giese is a noble man, working in a noble cause. He is my friend, but so is everyone who is a servant of God.

:O:

#### THE SUPPLY BUSINESS

for this season of the year is much better than we expected it to be. Indeed, we have been running full time for nearly two months, with a full force, and yet we are not up with orders. As we could not fill all orders received last season, we had concluded to start up early and manufacture a few carloads of goods ahead to tide us over the rush that will come later, but so far we have nothing ahead, except orders. We surely will catch up soon. If not, we will add extra hours. Our friends may be interested to know that we have added two automatic machines—one for manufacturing the justly-celebrated "Higginsville Hive Cover," and the other for the manufacture of frames. These machines cut off both ends of cover and frame pieces, score them, counts them, and piles them up in boxes. Each one of these machines will do the work of four men, and do it better, and at the end of each day all we have to do is to go to the register of each machine and see how much work it has accomplished that day. This machinery was all built under the supervision of our machinist, Mr. E. B. Gladish, and it is a grand success.

:O:

How much honey is necessary to winter a colony of bees? The following table prepared by Mr. D. E. Keech, of Martinsville, Mo., is quite interesting, and will be valuable to those who want to know how much honey is necessary to winter a colony of bees on.

Different circumstances and different colonies cut quite a figure, it will be noticed:

#### FALL AND SPRING WEIGHTS OF COLONIES OF BEES.

No. hive	Fall Wt.	Spr. Wt.	Weight of Hiv&Bees	Honey eat.	Honey left
* 1	71½	58	40	13	18
2	93½	80	45	13	35
3	68	62	40	6	22
4	71½	63	40	8	23
† 5	72	64	40	8	24
6	88	68	40	20	28
† 7	80	68	45	12	28
‡ 8	72	64	35	8	33
§ 9	74	61	40	13	21
10	86	71	40	15	31
11	78½	64	40	14	24
12	71	56	40	15	16
13	55½	44	30	11	13
14	72½	60	40	12	20
15	63½	42½	30	21	12
16	84½	48	35	36	13
17	61	49	35	12	14
18	74½	60	40	14	20
19	68½	50	40	18	10
20	57½	45	35	12	10
21	60½	44½	35	16	9
22	68½	55	35	13	20
23	63½	50	40	13	10
24	53½	42	40	11	2
25	63½	52	40	11	12
26	70	50	40	20	10
27	55½	44	40	11	4

\* Side walls, double.

† Hive sixteen inches wide.

‡ Side walls, double.

§ Goods box over hive.

Bees were wintered on summer stands. The table shows a great difference in the amount of honey consumed by the different colonies, averaging about thirteen pounds, and about an average of seventeen pounds left.

:O:

#### THE AMERICAN BEE JOURNAL AND THE SUPPLY TRADE.

It seems to me that the PROGRESSIVE has had nothing to say on this subject, and I don't know as the subject is worthy of discussing. Some other journals, however, have seen fit to write quite lengthy, and quite a number have written to me on this topic, and it may be that it is worthy of discussion.

If I was asked the question, "Is the American Bee Journal interested in the supply business?" I am afraid my

answer would not suit everybody. There is one thing I do know. The editor, owner and proprietor of the American Bee Journal is interested in the sale of supplies; he is also interested in his own financial interest, and has been using all honorable means in the past years to make all the money possible out of the American Bee Journal.

Now as Bro. York has seen fit to interest himself in the sale of supplies, he no doubt can make good use of his columns to boom certain lines of goods or the personal popularity of certain individuals by whom he is employed.

Now as to all the foregoing, I have just this to say: It is strictly Mr. York's own business and should be of no interest of moment to any of the rest of us. Again, if I was asked if I think Mr. York will use the columns of the American Bee Journal for the advancement of any special line of goods, or any individual or set of individuals, my answer would be, I do not think he will.

As I have said so much on this subject, I will say a little more. It is this: I consider the supply business for bee-keepers honorable, and if one wishes to run two businesses—for instance as running a bee journal and a supply business—he would be a dull man who would not use one branch of his business to honorably promote the other. For instance: How could the proprietor of a periodical conscientiously recommend the columns of that periodical to other advertisers without having some of the good space himself when he is in the same line of business? Again, suppose someone should address the American Bee Journal, Chicago, Ills.: "Please send me a copy of your bee journal and a copy of your catalogue of apiarian supplies." Brother York has received just such letters as these, and has announced through the columns of his paper that "the American Bee Journal is not in the supply business." To "write to some of those who advertise in the American Bee Journal." Now will Mr. York pursue this course in the future, or will he mail them one of Mr. Root's catalogues? As I said before, I don't think it is any of my business, and I don't care a straw if Bro. York is in the supply business. He does not claim to be a bee-keeper, and he denies being in the supply business. I suppose he means by not being in the supply business that he does

not buy the goods—only manages a branch house for someone who *is* in the supply business—all of which is legitimate. Well, this is a good big country, and I hope Bro. York will make a "barrel" of money.

LATER: In a recent letter from Mr. York, we quote the following:

"The A. I. Root Co., have no interest whatever in the American Bee Journal—not a bit. I find some dumb people think the Roots have bought the American Bee Journal also. The American Bee Journal is just as free and independent as ever."

Gleanings, in speaking of this matter in the December 15th number says the American Bee Journal has no interest in their branch house, they having only engaged the editor to run a supply house, as he had been an old wheel-horse in the supply business under Thomas G. Newman & Son, and by virtue of his experience and general acquaintance with the territory. Mr. Hutchinson, in the Review, says he does not think Mr. York could say he is entirely disinterested in the sale of supplies. I conclude from the information at hand that Mr. York is interested in the sale of supplies, but I do not think this will in any way injure the quality of his journal. Indeed, should he make money out of supplies, he may, if possible, make his journal better.

:O:

ON page 12 Mr. R. C. Aikin says bee-keepers should pack their honey for market so it can be retailed in the "original package," and that glass jars and other expensive packages of the like are a detriment to the sale of honey, as the package costs as much as its contents, and when empty is of no use to the purchaser. We have in mind a tin can that is made in pints, quarts, half-gallons and gallons, and in place of a screw-cap, a cork is used. These cans cost but a trifle, and with the cork waxed they will be as safe for shipment as a screw-cap can. More of this later.

:O:

"Ring out, wild bells, to the wild sky,  
The flying cloud, the frosty light!  
The year is dying in the night.  
Ring out, wild bells, and let him die!  
Ring out the Old, ring in the New;  
Ring, happy bells, across the snow!  
The year is going—let him go.  
Ring out the false! Ring in the New."

Such is the greeting we receive from the belfries of thousands of churches,

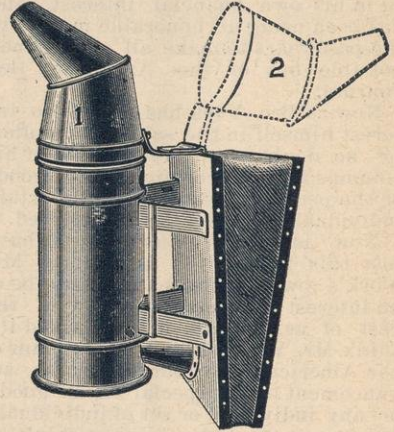
as we turn from the burial of the old year, and almost ere we've left the tomb and the tolling of the bells has died away, it breaks forth in a sort of exultant musical chorus which swells and swells upon the breeze and serves to lift desponding hearts and deal to them new strength and hope.

The old year's gone—gone with its pleasures and pains. To many it brought misfortune and mourning. Families that were a unit at its birth are now but fractional parts. The father or mother, or both, sister or brother, the son, the daughter, the husband or wife, lie buried with the old year. To such, remembrance is painful, and they are quite willing to enter into contract with the new-born year, feeling that he cannot possibly prove as cruel as his departed predecessor.

But to others, the old year brought but little except benefits and blessings. Success followed success. He has literally poured out the good things of earth, even unto overflowing, and these may be a little loth to welcome a stranger lest he be not so generous. But whether or no our heart's reception rooms are open, he has arrived, and we welcome him, warmly welcome him, knowing full well, should he prove unfriendly, the months will soon chase each other through the circling year, and almost ere we are aware, end his career. Then welcome, thrice welcome, New Year, and we will be up and doing to make your stay with us both pleasant and profitable, and may you establish yourself beyond doubt the greatest of friends to all the readers of the PROGRESSIVE, is the ardent wish of "ye editor."

Although during the departed year I have aimed to give my time and best energies for my readers' interest, yet I dare to dream of even greater possibilities in this the New Year, and trust they will give me their hearty support, and that for the same they will feel repaid. Even now, as the dormant buds on the trees and the tiny rootlets reposing in the lap of Mother Earth are dreaming of the bounteous yields they will next summer return to us, so I am planning to keep the best and most for the money, set before my readers. Can you justifiably aid and encourage me? On you, dear reader, partially rests the responsibility of the PROGRESSIVE being a success or failure. Join hands with me, and give it a lift, and may

you never live to regret the action, for it shall ever be my aim to make it a real, live, true friend and counsellor. A happy, happy New Year to all.



THE "HIGGINSVILLE SMOKER."

☞ A Good Smoker for a Little Money.

THE HIGGINSVILLE SMOKER A DANDY.

I received the Higginsville Smoker all O. K. It's a dandy; please find enclosed stamps for another. Yours truly, OTTO ENDERS, Oswegathie, N. Y.

Price 75c; by mail, \$1.00. Address, LEAHY MFG. Co., Higginsville, Mo.

**SECTIONS FOR LESS THAN COST.**

We have an overstock of Cream and No. 2 4x4 1/4 7-to-foot Sections. We will sell them at the following low prices to clean up this lot:

150,000 7-to-foot Cream at \$1.25 per 1000.  
125,000 7-to-foot No. 2 at 1.00 per 1000.

These are a choice lot, and will not last long at these prices. Order at once, and say special offer. Address, LEAHY MFG. Co., Higginsville, Mo.

## B. T. Canterbury,

Breeder of

Partridge Cochins, Dark Brahmas, Black Minorcas, and Golden Wyandottes. Fifty fine young males for sale. Eggs in season \$1.50 per fifteen. A few Silver Wyandottes and black-breasted Red Games, fifteen hens and three males, at a bargain.

Higginsville, Mo.

Please mention the "Progressive."

## Points of Superiority.

**1st POINT!** The BEE-KEEPER'S REVIEW gives reports of the work done at the Michigan State Experimental Apiary—gives them as soon as possible after the work is done, while they are fresh, of a newsy character, and can be of some benefit.

**2d POINT!** It gives Hasty's monthly, three-page review of the other bee journals. Hasty is inimitable. He looks at things from a side-light, giving unique views that arouse one's thinking powers.

**3d POINT!** F. L. Thompson is a practical bee-keeper and thorough linguist. He reads ten of the leading foreign bee journals, and each month furnishes the REVIEW the gist of what he finds in them that is valuable.

**OTHER POINTS** of excellence are possessed by the REVIEW, but these three are to be found in NO OTHER JOURNAL. The REVIEW is \$1.00 a year. Last three issues of 1895 free to new subscribers for 1896. Ask for a sample, or send ten cents for three late but different issues.

**W. Z. HUTCHINSON,**  
Flint, Michigan.

Please mention the "Progressive."

## WANTED!

10,000 pounds of BEESWAX, for Cash.  
Address,  
LEAHY MFG. CO., HIGGINSVILLE, MO

The publisher of the Kansas Bee Journal has decided to change the name of his paper, and call it

# RURAL KANSAN



It will contain enough about **Bees** for the average bee keeper, and will also interest him in other subjects, as **Poultry, Horticulture, Agriculture, Live Stock, The Home, Etc.** 30c a year, monthly. Sample copy free. And you will also want his catalogue of **Bee Keepers' Supplies.** Address

**HENRY L. MILLER,**  
**TOPEKA, KAS.**

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## DO NOT ORDER YOUR SECTIONS

until you get our prices on



## The "Boss" One-Piece Section

—ALSO—

## Dovetailed Hives, Foundation

**AND OTHER SUPPLIES.**  
We are in better shape than ever to fill order on short notice. Write for Price-List,

**J. FORNCROOK,**

WATERTOWN Jeff. Co. Wis., January 1896

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## DO NOT FAIL

to write for a circular of that

## "ST. JOE HIVE."

**EMERSON T. AEBOTT, ST. JOSEPH, MO.**

Please mention the "Progressive" in answering this advertisement.

## Four Months' Trial Trip—Jan'y—Feb'y—March—April—Only 25c

If you have never seen a copy of the **weekly AMERICAN BEE JOURNAL** send your address for a Free Sample; or better, for 25c. a "good taste," -17 numbers, 4 months-will be sent you. Why not try this trial trip?



It is better than ever! Dr. C. C. Miller has a dept., "Questions and Answers," for begin'rs, and nearly all of best bee-keepers in America write for its columns. Among the Bee-Papers is a dept. wherein will

be found ALL that is really new and valuable in the other bee-papers This is the bee-paper. Address, **GEO. W. YORK & CO., 56 Fifth Ave., CHICAGO, ILL.**

Please mention the "Progressive" in answering this advertisement.





Direct-Draft Perfect  
BINGHAM  
Bee Smoker

PATENTED  
1878, 1882 and 1892.

PRICES OF

Bingham Perfect  
BEE-SMOKERS and HONEY-KNIVES

PATENTED 1878, 1882, and 1892.

		per doz.	each.
Doctor	largest smoker made. } 3½ inch stove.	\$11.00-Mail,	\$1.50
Conqueror		6.00-	1.10
Large	2½ " "	5.50-	1.00
Plain	2 " "	4.75-	.70
Little Wonder	2 " weight 10 oz	3.25-	.60
Honey Knife		7.00-	.80

Smokers in dozen lots, 10 per cent discount.  
Knives " " 5 " "

The three larger sizes have extra wide shields and double coiled steel wire handles. These SHIELDS and

HANDLES are an AMAZING COMFORT—always cool and clean. No more sotty nor burnt fingers. The Plain and Little Wonder have narrow shields and wire handles. All Bingham Smokers for 1896 have all the new improvements, viz.: Direct Draft, Bent Cap, Wire Handles, Inverted Bellows, and are ABSOLUTELY PERFECT.

Bingham & Hetherington Uncapping Knife



Patented May 20, 1879.

P. S. An express package, containing six, weighs seven pounds.

**T. F. BINGHAM,**  
FARWELL, MICHIGAN.

Please mention the "Progressive" in answering this advertisement

**SAVE MONEY.**

It is always economy to buy the best, especially when the best costs no more than some thing not half so good. OUR FALCON SECTIONS are acknowledged to be superior to any on the market. The same is also true of our HIVES and BEE KEEPERS' SUPPLIES, of which we make all modern styles. OUR PRICES will be found as low as those of any of our competitors, and in many cases lower, and you are always sure of getting first class goods. We also publish THE AMERICAN BEE KEEPER, a monthly Magazine (Fifth year) at 50c a year, invaluable to beginners. Large illustrated catalogue and price list free. Address.

THE W. T. FALCONER MAN'G. CO., Jamestown, N. Y.

W. M. GERRISH, of EAST NOTTINGHAM, N. H. is our Eastern Agent. New England customers may save freight by purchasing of him.

Please mention the "Progressive" in answering this advertisement.

Make a  
Note  
of this.

All Ready for 1896.



"A WORD TO THE WISE IS SUFFICIENT."

We are located in the great Basswood Timber Belt of Wisconsin, where we have the finest Basswood in the world for **ONE PIECE SECTIONS**. We have a saw-mill in connection with our factory, enabling us to take our lumber right from the log. We have all the up-to-date machinery for manufacturing the One-Piece

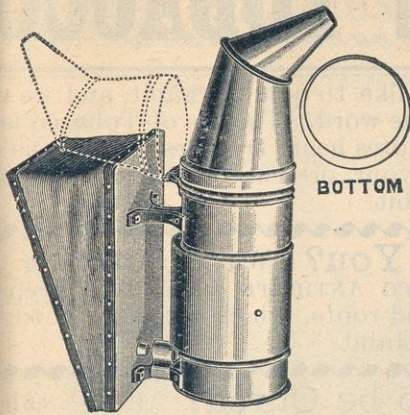
Sections, and can therefore guarantee you a first-class section in every respect. Our shipping facilities are unsurpassed, having three through lines of railroads to Chicago. Write us for prices. We will give bottom figures on sections.

The Marshfield Mfg. Co.

Marshfield, Wisconsin, (Wood Co.), Dec. 1, 1895.

Please mention the "Progressive" in answering this advertisement.

## The New Cornell Smoker. †



CHEAP, STRONG, SERVICEABLE, LARGE SIZE.

**JUST THE THING** for those who want a first class smoker at a medium price. Size of cup, 3 1/4 inches; curved nozzle, hinged so as to swing back legs of malleable iron, secured by bolts. The blast is the well-known Cornell principle. Weight of Smoker, only 20 ounces; Here is what one of our customers says of it:

"The Cornell Smoker is a Dandy with a big D. I have been using it today on the cross-section colony of bees I ever saw. I think I could drive a bull dog with it. S. R. AUSTIN."

Amityville, N. Y.  
Price, \$1.10, postpaid, or 85c if sent by express or freight with other goods.

**THE A. I. ROOT CO., Medina; Ohio**

Please mention the "Progressive."

## BARNES'

Foot and Hand Power Machinery

This cut represents our Combined Circular and Scroll Saw, which is the best machine made for Bee Keepers' use in the construction of their Hives, Sections, Boxes, &c. Machines sent on trial. For catalogue, prices, &c. address



**W. F. & JOHN BARNES,**

914 Ruby Street, Rockford, Ills

Please mention the "Progressive."

## Cherry Grove Apiary.

I have 300 stands of 3-banded Italian bees for sale, and can give you satisfaction in prices and bees. Write for prices on full colonies in eight-frame dovetailed hive. One, two, and three-frame nucleus. Italian queens. In answering this advertisement, mention "Progressive."

**E. W. MOORE,**

Griffin, Posey Co., Ind.



Please mention the "Progressive."

## A New Departure.

### The Bee Keepers' Quarterly

will be issued April 1, 1894, and be largely devoted to Editorial Review of Apicultural Literature. It will contain not only all PRACTICAL METHODS of management and devices found in Bee Journals, but many points not published elsewhere. An EARNEST EFFORT will be made to eliminate the impractical theories and claims so often met with in Bee Literature, giving only PRACTICAL INFORMATION, which may invariably be relied upon. There are some Bee Keepers who are making a financial SUCCESS, even in these hard times, and to show you how they do it will be the "Quarterly's" mission. PRICE, 25 cents per year. Send address for free sample copy to

JAMES HEDDON, Dowagiac, Mich

Please mention the "Progressive."

## PATENTS

Promptly secured. Trade-Marks, Copyrights and Labels registered. Twenty-five years experience. We report whether patent can be secured or not, free of charge. Our fee not due until patent is allowed. **32 page Book Free.** H. B. WILLSON & CO., Attorneys at Law, Opp. U. S. Pat. Office. WASHINGTON, D. C.

Please mention the "Progressive."

## Golden Queens! From Texas.

My bees are bred for business, beauty and gentleness. Safe arrival and reasonable satisfaction guaranteed. G. W. Barge writes from Union Center, Wis.: "I have one queen you sent me last season that gave me 112 lbs of fine comb honey and 25 lbs extracted this season '93." Untested queens, \$1. J. D. Givens, Lisbon, Tex

Please mention the "Progressive."

## Canadian Bee Journal.

A first class journal published in the interests of bee keepers exclusively. Monthly. Enlarged and improved. Sample copy free. Address,

**GOOLD, SHAPLEY, & MUIR CO.,**

R. F. HOLTERMANN, } Publishers,  
Editor. } Brantford, Ont. Can

Please mention the "Progressive."

# DO YOU USE TOBACCO?

If you do, we know you would like to quit the habit, and we want to assist you, and will, if you say the word. The use of Tobacco is injurious to the nervous system, promotes heart troubles, affects the eyesight, injures the voice, and makes your presence obnoxious to those clean and pure from such a filthy habit.

**How Can we Help You?** Why, by inducing you to purchase a box of COLLI'S TOBACCO ANTIDOTE, which is a preparation compounded strictly of herbs and roots, which is a tonic to the system; also a cure for the Tobacco Habit.

**Would You Like to be Cured?** If so, call on your druggist, or send us one dollar, (\$1.00) and we will send you, postpaid, by mail, a box of COLLI'S TOBACCO ANTIDOTE.

**What we claim.** This is not a discovery of an ignorant Indian, or some long-haired cowboy claiming to have come into possession of some valuable remedy by being captured out west, but is a discovery of twenty years' study by one of the most eminent physicians of the east. who has made nervous diseases a study.

**Throw away Tobacco** and you will have no more stomach Troubles, Indigestion, Heart Trouble, or Dyspepsia. Cigarette Smoking is also cured by using two boxes of COLLI'S TOBACCO ANTIDOTE.

**Our Responsibility.** We would not expect you to send us your money unless you were sure of our honesty and good intentions. Hence, before entrusting money to us, we most respectfully refer you to the Bank of Higginville, Citizens' Bank, of Higginville, or to the postmaster of this city, as to our responsibility, etc.

Smithville, Mo., May 20, 1895.

Colli Company, Higginville, Mo.: Dear Sirs—Please send me by mail postpaid, one dozen Colli's Tobacco Antidote, for which find enclosed cash in full payment of bill. The box I got from you I have been using just one week today. I have not craved tobacco since the first day I used it, and the desire has almost entirely gone. I think I can heartily recommend it and conscientiously sell it. Very respectfully,  
J. M. AKER.

Chicago, Ills., December 7, 1894.

Colli Company, Higginville, Mo.: Gentlemen—I had Mr. Vermillion, the agent of the Chicago & Alton railroad at your place, to procure for me a box of your "Colli's Tobacco Antidote," and have taken it with wonderful success. I have some friends here that want to use it. I have tried several of the leading drug stores here, and can't find it. If it is on sale here, let me know where as soon as possible  
Yours truly,  
W S GRAY  
Conductor C & G T R R, Chicago, Ill

**How to Send money.** Money can be sent at our risk by registered letter, postoffice money order, or bank draft on some commercial center. In no case send local checks. In most cases a dollar can be sent in a letter without registering, but we would not be responsible for any loss thereby.

**COLLI COMPANY, Higginville, Mo.**



The...

# Simplex Typewriter.

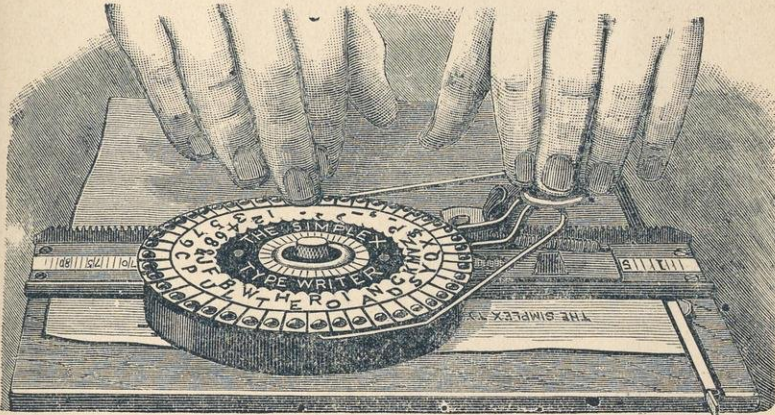


*The Simplest Thing in the World.*

The only really practical cheap typewriter ever put on the market.

Is Rapid and Does Good Work. Is Easy to Operate. Is Handsome. Can be Carried in the Coat Pocket.

**PRICE \$2.50.**



Sci. Am. N.Y.

THE LATEST OF THE BEST TYPEWRITERS. THE CLIMAX OF IMPROVEMENTS. THE MINIMUM OF PRICE. DESTINED TO REVOLUTIONIZE WRITING, AS THE SEWING-MACHINE REVOLUTIONIZED SEWING.

The "SIMPLEX" is the product of experienced typewriter manufacturers, and is a PRACTICAL TYPEWRITER in every sense of the word, and AS SUCH, WE GUARANTEE IT.

FOR BUSINESS MEN.—Every man, whatever his business, has need of the "SIMPLEX." LAWYERS find them indispensable. MERCHANTS acknowledge their great value. CLERGYMEN write their sermons with them. AUTHORS their manuscripts. Letters written with the "SIMPLEX" are legible and neat, and at the rate of FORTY WORDS PER MINUTE.

FOR BOYS AND GIRLS.—The "SIMPLEX" will be hailed with delight by BOYS AND GIRLS. It will improve their spelling, and teach proper punctuation. It will encourage neatness and accuracy. It will print in any colored ink, violet, red, green, blue or black. It will PRINT A LINE EIGHT INCHES LONG, and admit any size letter paper. The printing is always in sight. A USEFUL, INSTRUCTIVE AND ENTERTAINING NOVELTY, AT THE PRICE OF A TOY.

Nothing is of greater importance than correct forms of correspondence. The "SIMPLEX" encourages practice, and practice makes perfect. Writing with this machine will be such jolly fun for your boys and girls that they will write letters by the dozen. This may cost you something for postage stamps, but the improvement in their correspondence will repay you.

### EXTRA POINTS,

The alignment of the "Simplex" is equal to the very highest priced machine. It is positive in action, and each letter is locked by an automatic movement when the stroke is made.

It has no ribbon to soil the fingers.

The "Simplex" is mounted on a hard-wood base, and put up in a handsome box, with bottle of ink, and full instructions for using.

"I think the 'Simplex' is a dandy."—D. L. Tracy, Denver, Colo.

"The 'Simplex' is a good typewriter, and I take pleasure in recommending it as such."—B. F. Bishop, Morsey, Mo.

"I received the typewriter one hour ago. You can judge my progress by this letter. It is much better than I expected, and with practice I think I will be able to write very fast with it."—E. T. Flanagan, Belleville, Ill

Price of Machine, \$2.50. By mail, 25c extra for postage.

Address. **LEAHY MANUFACTURING COMPANY, HIGGINSVILLE, Mo.**

1896.

**NEW CATALOGUE.**  
**PRICES.**

**QUEEN BEES IN SEASON.**

Hives,  
Smokers,  
Sections,  
Honey  
Extractors,  
Comb  
Foundation.

AND ALL KIND OF **APIARIAN SUPPLIES**

AT  
**BED ROCK.**

WRITE FOR ESTIMATES ON LARGE QUANTITIES.

SEND FOR MY 24-PAGE, "LARGE SIZE" CATALOGUE

ADDRESS

**E. T. FLANAGAN,**

ST. CLAIR COUNTY.

BELLEVILLE, ILLS.

The  
Amateur  
Bee  
Keeper....

A 70-Page Book for Beginners.

—BY—



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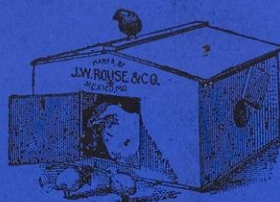
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