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**The Nebraska Bee-Keeper
AND IRRIGATOR.**

A MONTHLY JOURNAL DEVOTED TO APICULTURE AND IRRIGATION.

Vol. 7.

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Notes from Knox County Nebraska.

Spring opened up early with us; in fact let us be plain about it and own up that we had no winter. Mr. L. has had several attacks of bee fever during my acquaintance with him, the last, however exceeded all former ones in both duration and violence, engendered possibly by the fact that Knox Co. presented more aspects favorable to apiculture than any part of the state; also that he was constantly being told that bees were a failure up here; the owners of empty hives would point to them and say, "See there! they all died or ran off; climate don't agree with them." To all of which Mr. L. only offers them the comforting assurance that they (the bee men) didn't know their business. And being that kind of a man who delights to fly in the fan of public opinion, he at once declared he was going into bees. Arrangements were made in the fall of '95 to that effect, and on May 29 we received our bees, a 3 frame nuclei, and to day have three large, strong colonies and three hives full of as beautiful honey as one would wish to see or taste. We have reared, or rather the bees have, two fine young Italian queens and brood rearing is going on rapidly. We think of dividing them again in a few days, making the 4th colony, it seems necessary as they are propagating at such a rate.

Sweet clover came into bloom May 25th four days before we received the bees, so you see they found themselves "in clover" from the start, and of all the nectar producing plants we ever saw or heard of, it surely takes the lead. We had two acres of it and placed the hives right along side of it and, well, I don't know much about bees, don't know as I care to, for the little scamps seem to have it in for use, but to my astonished eyes it seemed as if they brought in honey by quarts and gallons. We put out a nice flower garden with an eye to bee pasturage, choosing only honey plants, but do you think we could coax a bee to leave the sweet clover long enough to give the flowers even a passing glance? Not a bit of it. Cleome bloomed at the same time, but it too was disregarded like all else until the clover gave out, then they turned their attention to cleome, catnip, borage, sweet basil, portulaca and other native plants.

Simpson's honey plant and cleome are here in great abundance, not cleome pungens, but cleome integrifolia, which is fully as good as the former. Simpson's honey plant is nothing more or less than figwort, known botanically as scrophularia nodosa, it belongs to the same order as the common mullen. Among other native honey producing plants here, are wild grapes, raspberries, cherries and plums, in quantity. Golden rod, purple cone flower and many others abound, plenty of bee pasture the season through, but if you want to see a rush in business sow sweet clover, and if you want to prolong the clover season adopt the following plan. Sow early this fall, any time in August is better, for full crop of early bloom next spring, sow on waste lands inside of enclosure where stock can not eat it off. For late blooming sow in pasture or along roadsides where stock can eat it, that will keep it down for late blooming. Our bees are working on it now, bringing in honey daily. It requires no preparation of the soil and no after cultivation. We simply scatter it broadcast, and let the rains do the rest. It never bothers cultivated fields and it is a drouth resister. While for hay it is very similar and about equal to alfalfa.

Aug. 1st. 1896.

Mrs. L. E. R. Lambrigger.

The Observing Bee-Hive as an Educator.

BY CHAS. DADANT & SON,—AMERICAN BEE JOURNAL.

One of the best educators of beginners is the observing hive. Yet the many questions often asked by them through the bee-papers show that very few use the observing hive as a means of acquiring a fair knowledge of the habits of the bee. Books are good, but what you read is easily forgotten, and nothing will impress facts upon your mind as readily as witnessing them. Not only does the bee-keeper gain much from his observing hive, but he also interests his neighbors and all who visit him, for very few sciences are as old and as little known as bee-culture.

The rearing of a queen from a worker, her development, the different stages of the metamorphosis of bees, from the egg to a perfect-winged insect, the difference in drone and worker combs, the shape of the cells, the harvesting of pollen, the production of wax, the difference in appearance between old and young bees, their behavior towards robbers—a thousand little things which are absolutely needed to be known if one desires to succeed—all this can be made clear by the use of an observing hive.

Such a hive is inexpensive. One bottom-board 6 inches wide and the length of the hives in your apiary; two upright pieces for the ends,

2 inches wide and of the same height as the brood chamber of your hives, with a rabbet in each for the shoulder of the frame; one glass on each side, fastened by a light frame, two tight blinds made of light wood, and a narrow board for the top, and your hive is complete. Make a small auger hole for the entrance. Then take a frame of brood and bees, young brood mixed with hatching brood, so you may have hatching bees and young larvæ to rear a queen. Take this from your best colony, Italians if possible, as they are so much quieter than other races. A hive like this may be kept even in an apartment by a window all summer. The bees become used to seeing you, and never sting, if the proper precautions are taken to handle them with the greatest care at first. The blinds should be so arranged that they may be put on and removed without jar. Some people, instead of blinds, use only a black cloth thrown over the hive.

It is indispensable that there be but one frame in such a hive, for every part of the hive must be so placed as to be subject to our inspection, otherwise we may lose the sight of the most interesting of their performances when we most desire it. One has no idea of the pleasure that such a hive will give, when you can exhibit the bees rearing a queen, or the queen in the act of laying, or the respectful behavior of the little workers towards their mother. There is no end to the discoveries that are made, many of which you will think are original with you, and of which you will be very proud, as a new addition to the world's knowledge, until you find out that some had already discovered it two hundred years ago. But, nevertheless, it is quite a good thing for you, for probably you would never have heard of it, had you not seen it yourself.

Outside of its advantage as a means of education, the observing hive may be made to pay its way, yes, twice over, if properly managed. Its actual cost, if you are, as usual, somewhat of a carpenter (all bee-keepers are carpenters, jacks of all trades), will be only a few cents, the glass being the most expensive part of it, but even if you have to have your hive made by a mechanic, it will not cost you to exceed a dollar. The frame of brood and bees taken in June from one of your good colonies will hardly be noticed. With this you may, if successful, rear three or four queens during the summer, and these can be used to make artificial swarms or replace missing queens in an apiary, or they may be sold and repay the cost of the hive several times over. At the end of the season, the comb and the bees may be united to a weak colony of bees, and help to strengthen it, and the observing hive laid away for another summer.

To those who keep bees in the city, this hive is a source of endless amusement. One cannot conceive the lack of knowledge on the subject of bee-culture among the masses till one shows the observing hive to all

comers. The most startling question we ever heard was by an old maid: "Do all those little bees go to bed in those little holes every night?"

Hamilton, Ill.

In regard to the above about observatory hives, we always find the leading attraction of the apiary exhibit, with the people, is the observatory hive. Some of course are attached by idle curiosity, others by a desire to learn more of the inside workings of the hive and the exhibitor of such a hive never fails to find an appreciative audience as he explains what he knows of the work of gathering and storing honey. (Ed.)

Side Issues on the Farm--Paper by G. W. Hervey.

Extract from the above relating to Bee-Keeping.

The keeping of bees on the poultry farm is strongly advocated, as the two industries seem peculiarly suited to go together under the same management, and in localities where specialty industries are adopted as in the neighborhoods of large cities, we find the small fruit farms stocked with both bees and poultry. The bee is regarded as an advantage to the fruit raiser, since no more useful agent than the pollen-carrying, honey-seeking little bee can be found in aiding the yield of fruit. The interest of fruit-grower and bee-keeper, far from being antagonistic, lie, indeed, so nearly in the same direction, that the two industries are being combined all over the fruit-growing districts. It is claimed by good authority that the leading cause of barrenness in fruit trees and bush fruits is lack of proper pollination. Many trees are not properly self-fertilizing. The opinion prevails that more trees, shrubs and garden plants have to depend on the agency of insects, especially the honey bee, for the transfer of suitable pollen, and thus become more fruitful than is usually supposed by the average soil tiller. Some very remarkable instances have been reported where fruit trees were almost fruitless for a number of years, during which time no bees were kept in the vicinity, and all at once began to bear heavy, regular crops so soon as an apiary was established near by. We are satisfied that bees serve a good purpose in this way, and that every farm should have a few colonies of bees near the orchard for this purpose, if for nothing else.

As money makers the honey bee has few, if any, equals. It will turn out a larger per cent of profit, even, than poultry. It requires more careful and scientific study and management than to care for fowls. It is not everyone who will give bees the attention they need to make them highly profitable. They need someone to direct their business, and they will do the work. The annual profit of a colony of bees is

variously estimated by bee-keepers from \$10 to double this amount. We are familiar with many instances in Nebraska where several hundred per cent has been realized in a single season on the investment of a few dollars in a few colonies of bees. These special cases do not necessarily establish a basis of uniform profit; but the fact that when a man or woman takes up bee culture intelligently and sticks to it is evidence of its money value. Once a bee keeper always a bee keeper is the rule almost without exception.

Some statistical information on this industry will no doubt be of interest to everyone. The per cent of increase in honey production in the United States from 1879 to 1889 was 148.2, and that in Nebraska, in the same period, was 761.2 per cent. In 1879 but twelve states produced more than 1,000,000 pounds each of honey. Iowa leads with a production of 7,000,000 pounds; Illinois, Missouri and New York, in the order named, reach the 4,000,000 mark; California leads another group of three that passes the 3,000,000 yield; there are seven others that go above 2,000,000 pounds, and another six that reach 1,000,000 pounds.

Among the minor branches of rural industry, bee keeping is the most important, though its prominence is not generally recognized from the fact that it is almost everywhere carried on as an incident of general agriculture, and but rarely as a leading rural occupation. The value of the annual product is not generally realized. The aggregate value is large, much larger than that of other crops of which more notice is usually taken. It equals the value of the hop or the rice crop; it falls but little short of buckwheat, exceeds the value of cane molasses, and of both maple syrup and sugar. It largely exceeds the aggregate value of all our vegetable fibers, excepting cotton, and in 1879 was half as large as the entire wine product of the United States for that year.

We are located here in the Missouri valley in the finest honey producing district on the continent. We are in the midst of a natural alfalfa country; irrigated valleys of millions of acres, which are soon to be, incidentally, the greatest bee pastures in the world. Bee ranches will be established as side issues to annually take up the millions of dollars in value of nectar that otherwise would be lost in the primary industry of alfalfa growing for stock feeding purposes. Thus it is illustrated again that one of the so-called side issues is capable of yielding dollars in profit where dimes are had from the main features in the farm management.

IRRIGATION: United States Hydrographic Survey.

Ever since people on the plains began to realize the necessity of irrigation they sought and found wanting certain points of information of

prime importance. The first essential to irrigation is an adequate supply of accessible water. The determination to this supply as to quantity, distribution and accessibility is a work of much magnitude and of such a public character as to clearly make it a public function. This position has been more or less clearly stated by every irrigation convention in which the people of the great plains have had a prominent part. In some cases other demands have been coupled with that for this necessary information, and these other demands have not in all cases been free from the incubus of personal aspirating for place.

The importance of the subject was so impressed upon the last Kansas legislature that it provided for a commission to undertake the work according to plank outlined in the law creating the commission.

The United States geological survey, which has for many years been conducted under the supervision of the department of the interior, investigated the irrigation problems of the mountain states several years ago. Its work has recently been greatly extended. The hydrographic division is under the direction of a tireless and conscientious worker of long experience, though still a young man, Mr. F. H. Newell, who did much of the work in the mountain regions. Under the late acts of Congress he is charged with the examination of the water sources of the entire country from the Atlantic to the Pacific and from the British possessions to the Gulf and the republic of Mexico. In New England the investigation is made with reference to water-powers; in the south, water-powers and supplies of healthful drinking water; in the west, irrigation.

In Kansas Mr. Newell is co-operating with the irrigating board and with the state university in its geological survey by Professor Erasmus Haworth, who is investigating the underground water supplies, being just now engaged in the southwestern part of the state. The engineer of the irrigation board, Mr. W. G. Russell, is employed by Mr. Newell on behalf of the government hydrographic survey, to attend to the gauging of streams of the western part of the state. Professor E. C. Murphy of the state university is also co-operating in determining the power of windmills.

Of the work Mr. Newell says: "It is practically classified into two divisions, the survey and examination of surface waters, and the same study of the underflow or percolating waters. The investigation of the underflow is one of the most difficult parts of our work. It requires an exhaustive study of the geologic conditions and of the structure and position of the rocks. The character of the rocks is by no means uniform. In places thick beds of shale underline the surface soils, and in these it is hopeless to drill expecting to obtain large quantities of sweet or fresh

water. In such localities a supply for irrigation can only be obtained by storage of the storm waters. In other places the previous gravels and sands afford a supply practically inexhaustible to ordinary pumping machines. By storage or by pumping it will be possible to secure sufficient water to irrigate a few acres, at least, around each homestead, allowing the farmer to raise sufficient vegetables for his own use and to surround his home with fruit trees and shrubbery. By utilizing the resources at hand the settler can secure a comfortable living and can afford to try his luck in the cultivation of larger areas of the cereals. Should the season be propitious he can utilize the grazing areas surrounding his home by the pasturage of stock, winter-fed in part, at least, by the products of his irrigated land.

The objects of our work are to ascertain the facts regarding the water supply, the limitations and the possibilities, and to state these plainly as a guide to the best development of the country; to prevent, if possible, wasting of money in sinking wells where the chances of obtaining water are dubious, and to encourage the construction of irrigation plants where it is reasonable to suppose that success will follow. Local advice and direct information will only be possible after a thorough study of all the conditions, but from time to time the facts of importance are being published in a series of pamphlets designed for popular distribution. The first of these on pumping water for irrigation will be followed shortly by others dealing with the application of water, its storage, and other details of interest to the irrigator."—Kansas Farmer.

What an Irrigator Should Know.

The highest art of the irrigation farmer is to have learned the needs of his soil, to know, not so much the exact number of inches of water it takes to irrigate an acre, but the condition which his particular soil should be in when it has been watered sufficiently. It is beyond the science of figures to determine the amount of water a plant needs on various soils. The farmer may, by close and intelligent study of plants and their requirements, determine very closely when sufficient irrigation has been given.

The prevailing fault with amateur irrigators and too large a number of those who have had experience, is the application of too much water. An excessive dilution of the soil separates its particles and produces an approach to a mortar bed, that settles down tight when dry, shutting out the air, causing evaporation to increase and producing finally a hard dry surface, crusted over, which pinches plants, causes them to turn yellow and perhaps die. This method persisted in for a few years will

bring the richest soil to a condition which will support no vegetation more valuable than poverty weed.

This condition is not imaginary. It represents precisely the management and results on thousands of acres of once valuable land. It takes years of judicious tilling and fertilizing to renovate such soils. The soil irrigated from the Cacheola Poudre river produced thirty to fifty bushels of wheat to an acre in the pioneer days, but now, three decades later, fifteen to twenty bushels is the average. They raise fine potatoes now, but get nothing like the big yields that were common before 1870, unless the land is new ground or in the meantime has been highly manured. This condition arises from careless methods and ignorance of the needs of plants and soil. Intelligently applied, irrigation is the most valuable factor in bringing up and keeping up the productiveness of land. It aids in bringing soils into proper condition to receive manure and it afterwards aids in dissolving the manure at the right time, getting it in condition to be most conveniently available for plants.

—Field and Farm.

Mr. Allan Pringle, a Canadian Bee-Keeper, Dead.

On the afternoon of July 22, Mr. Allan Pringle passed away at his residence in Richmond Township, Napanee, Ontario, after an illness of about a week. The news of his sudden and unexpected demise was a great shock to his many friends. Mr. Pringle was born in the Township of Richmond about 55 years ago. He studied medicine for a time, but abandoned it to pursue the calling of an agriculturist and apiarian. He was recognized as one of the leading bee keepers of Ontario, and was placed over the honey exhibit at the World's Fair by the Ontario Government. He was a skillful and successful farmer also, and his farm, in the Township of Richmond, is a model of cleanliness and neatness. He was a deep thinker and logical reasoner, and as a writer of clear, forcible English, will take rank with the foremost writers in Canada to-day. He was a contributor to many magazines and newspapers both in the United States and Canada, and was in close touch with many of the ablest thinkers on this continent.

Mr. Pringle was a man of honesty and integrity; a vegetarian in his habits; not a rugged man, and his death is supposed to have resulted from a slight sunstroke, contracted some weeks previous. He leaves a wife and daughter to mourn his loss.

Mr. Holtermann, of The Canadian Bee Journal, says that the late Mr. Pringle has done much to place bee keeping before the public in its proper light, and he has held many prominent positions in the bee associations.

The Nebraska Bee Keeper

Published Monthly.

Subscription Price, 50 Cents per Year.

L. D. STILSON, EDITOR.
YORK, NEBRASKA.

*Official Organ of the Nebraska State
Bee-Keepers Association.*

Entered at the postoffice as second class matter.

Officers of the North American Bee-Keepers' Association 1896:—President, A. I. Root, Medina, Ohio; Vice Pres., Wm. McEvoy, Woodburn, Ont.; Secretary, Dr. A. B. Mason, Auburndale, O.; Treasurer, W. Z. Hutchinson, Flint, Mich. The next meeting will be held at Lincoln, Neb.

Officers of the Neb. State Bee Keepers Association:—Pres., E. Whitcomb; Vice Pres., H. E. Heath, Lincoln; Sec. and Treas., L. D. Stilson, York.

KEEP A-GOIN'

If you strike a thorn or rose,
Keep a-goïn'!

If it hails or if it snows,
Keep a-goïn'!

'Taint no uso to sit and whine
When the fish ain't on your line;
Bait your hook and keep on tryin—
Keep a-goïn'!

When the weather kills your crop,
Keep a-goïn'!

When you tumble from the top,
Keep a-goïn'!

S'pose you're out o' every dime?
Gettin' broke ain't any crime;
Tell the world you're feelin' prime!
Keep a-goïn'!

When it looks like all is up,
Keep a-goïn'!

Drain the sweetness from the cup,
Keep a-goïn'!

See the wild birds on the wing!
Hear the bells that sweetly ring!
When you feel like singin'— sing!
Keep a-goïn'!
—Atlanta Constitution.

Owing to a prolonged absence from home this issue has been delayed. We have for the past year been running our work close, paying little for hired help outside our regular working force so that when one is absent from work for a month the others are called on for an extra amount of labor, and sometimes work that should be attended to is left for another time. We trust our readers will not complain too much of our delay but bear with us in the endurance of hard times, trusting that in the near future money may be more abundant, better prices for our labor obtained. When we can hire more help and have things more swiftly. Our motto is and shall be, present work must pay running expenses, and no debts incurred, which we think is the only safe line to follow in these times of financial depression. Trusting that all our readers have so conducted their affairs that no debts have accumulated to be paid by a gold standard basis, we are very respectfully yours for plenty of silver.

Sweet Clover Seed.

WE have just received a supply of Sweet Clover seed and will sell at 30cts per pound, by mail, postpaid; 5 lbs. for \$1.00 to be sent by express, purchaser to pay expressage. Send CASH with order. Address,
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While our "white metal" is still good and the present silver dollar is worth a hundred cents, won't our delinquent subscribers just profit by the "doubt" and send us their back dues before the question is settled and before our U. S. silver dollar drops to half its present worth. (?) 'A word to the wise' is an old saying, and if our readers will send in promptly, we shall have no trouble in disposing of these dollars without loss, and then to you have the paper two years, whereas after election—we can't promise. Again, winter is coming, and while our office has been warm enough all summer, we are not quite sure yet about our warmth for winter,

then too you see we have to eat in order to be natural and like other people. A certain editor was one day looking over his proof, and coming to the 'ads' he saw the following headline,

"What Ten Cents Will Do."

Without delay he sent the following (editors sometime have an original thought,) which it is doubtless to say duly appeared among the 'ads:'

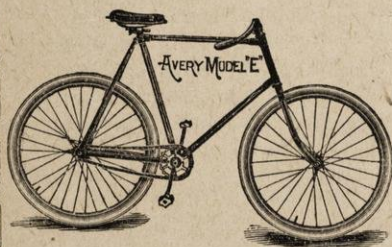
Wanted.—Some of our subscribers to pay the editor ten cents, so he can buy beefsteak for breakfast to-morrow.

Ripans Tabules.

Ripans Tabules: at druggists.

Ripans Tabules cure indigestion.

Ripans Tabules cure biliousness.



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1838

NUT AND FRUIT CULTURE.

1896

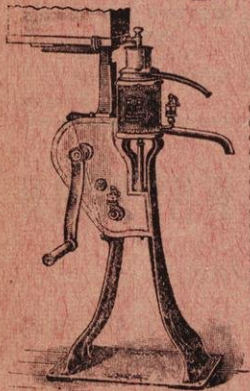
More profitable than *Wheat* or *Cotton*, with less labor and risk. Send for catalogue illustrating and describing best varieties. ALPHA, the earliest Chestnut, opens Sept. 5 to 10th without frost; RELIANCE, the most productive; PARRY'S GIANT, the largest, six inches around; PARAGON and others.

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I have been in the cream business for the last ten years, and three months ago I bought through your agent a No 5, high frame Improved U. S. Separator. "The nicest cream I ever saw," is the verdict of my customers. After a thorough test I am now ready to proclaim the merits of the U. S. to the world.

THOMAS HUSTON.

Hastings, Nebraska, July 18, 1896.

Send for new pamphlet No. 146, on Dairy Separators. We have everything for the Dairy and Creamery.

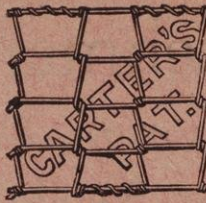
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