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Corregyondence.

INSECTS AND THEIR ENAMIES.

The Relations of the Farmer Thereto .- Ho they Originate and How to Depose Them.

BY F. S. MATTESON.

The fourth, last, and most numerous class of insects, which will be treated of tain localities of country, as low, marshy in these papers, all undergo the same transformations as the butterflies and moths. Hatched from the egg a worm, and after living for a longer or shorter time in this condition, they go into the chrysalis form, from whence in due time emerges the perfect insect, as unlike its former self as can well be conceived.

First on the list of this class are the wasps and hornets, own cousins to the domestic bee. Of these there are quite a number of varieties, all pretty well known and need no description here. Some writers place them among the useful ones, but their usefulness is not apocryphal, to say the least. Their stinging propensities render them obnoxious, and although they catch and eat other insects, they also feed upon ripe fruits, and besides the damage they do in this way, their presencee in the orchard or fruit room is a nuisance, without compensation equivalent.

The mason wasp (mud-dauber) is pos itively injurious; for, although better natured than most others, especially the "yellow jacket," or the "bald-hornet;" he catches multitudes of spiders, which he stows away in his mortar cells as food for his larvæ young. The spider being a useful insect, it follows, therefore, that the mason wasp can only be considered an injurious one.

The bumble-bee deserves kindly mention. He is industrious, sociable and fairs, and never meddles with those of to us that on the Amazon river, in South friendly, attends strictly to his own afothers. He is quiet and unassuming, America, unnumbered myriads of musalthough it is said that he can make more noise than a whale-for his size. He will fight when he is imposed upon, but is never aggressive. He is useful in the fertilization of flowers by distributing the pollen, in which, I believe it is days on the Mississippi river, whose a settled question that insects, especially bees, play a very important part. And I am one who holds the epinion that the domestic honey-bee is quite as useful in in the Snake river country, near Fort this direction as for the honey which he gathers.

In Europe the gnats and musquitos the larger insect a musquito. The school the musquito as "a small annoying insect." Correct. But the gnat is defined as "a small insect that stings." Yet the gnat does not sting as a bee or a wasp does; neither does either the gnat or musquito "bite" as animals having jaws do; but his probosis is a suction-tube, through which he thrusts his barbed dart into the flesh of his victim, and then pumps up the extravasated blood through his suction-hose. The natural food of these insects is the juices of plants, obtained from the tender leaves and stems in the same manner in which he phlebotonizes mankind. But once having tasted blood, like the man-eating tiger of the East Indian jungle, he forsakes his insipid vegetable diet to glut his insatiable appetite on the new-found appearance above ground. food.

The musquitos deposit their eggs in shallow standing water, in pools and ditches, any place where the water is warm and does not runs and from these eggs hatch out the well known "wiggler." What the wiggler eats or what he does during his larve stage other. I see in the last "Central" that you he does during his larvæ stage, other than wiggle, I am not prepared to say, but he does not stay in the water long before he comes to the surface, bursts open his skin upon his back, pops out his head and shoulders, feels for the that terrible disease, and I hope you will water (upon which he can walk) with give it a trial.—C. S. MORRIS, Brownshis long legs, drags his abdomen out of ville, W. Va.

his skin and leaves it floating like a tiny canoe gone adrift, and flies off in search of something into which to thrust his virgin probosis. He is both diurnal and nocturnal, but he avoids the mid-day sun, and a cool night places a "kiboosh" upon his operations. But when the temperature is right the festive musquito proceeds to enjoy himself. In habitat he is confined principally to ceror swampy land, near where he can find suitable water to breed in. He is a cosmopolitan, growing larger and more voracious as he approaches the equator. Oliver Goldsmith, a celebrated Eng-

lish naturalist, who flourished when our American States were only a few baby colonies of Great Britain, tells us, in the quaint phraseology of the long ago, that, "The gnat of Europe gives but little uneasiness; it is sometimes heard to hum about our beds at night and keep off the approach of sleep by the apprehension it causes; but it is very different in the illpeopled regions of America, where the waters stagnate and the climate is warm, and where they are produced in multitudes beyond expression. The whole air is there filled with clouds of these famished insects, and they are found of all sizes from six inches long to a minuteness that even requires the microscope to have a distinct perception of them. The warmth of the mid-day sun is too powerful for their constitution, but when the evening approaches neither art nor flight can shield the wretched inhabitants from their attacks; though millions are destroyed, still millions more succeed and produce the nec-

essary torment." We are not to suppose that the credulity of this learned savant was imposed upon by "tales of travelers," who for the wonderment of their readers "drew the long bow," when credible accounts come quitos abound of a size and ferocity that challenges belief; that they swarm in the woods and light on the trees and bark as the traveler passes by; and no old flat-boat man of the "broad-horn" musquito experiences render him a competent judge, will question the veracity of this account; and I myself have seen Hall, when I crossed the plains in '53, musquitos that I am satisfied would have weighed half a pound at least.

The only remedy that I know of is to are called by the one name, gnats. In live in a high and dry section of coun-America we make a distinction, and call try, or fend them off with musquito bar. As to the gnat, it only remains to say dictionaries of thirty years ago define of him, that he is a diminutive musquito, taking aptly after the ways of his big brother.

To be continued

To Remove Moss from Trees.

DEXTER, Or., March 25, 1886. Editor Willamette Farmer :

Will some of your readers be so kind as to tell me what is the best way to remove the moss that grows on our fruit trees, and which is certainly very injurious to the trees, to say nothing of the shabby appearance it gives to an orchard.

I wish to plant some corn this spring and would be thankful if some one who has had experience would tell me the best way to prevent crows from destroying the same just as it makes its

I would like to correspond with some one who has seed corn to sell which is well adapted to our climate.

Personal.

S. HANDSAKER.

Dear Bro. MEEK, Ed. "The Central

want a sick headache remedy. I suffered from sick headache, almost from infancy, and tried every remedy I could get, but never found anything to do me good until I used Simmons Liver Regulator. I feel for anyone that suffers with

BEE NOTES FOR APRIL

BY E. Y. CHASE.

Races of Bees Continued.

The last twenty-five years, which is the era of modern bee keeping, has been characterized by three important inventions, viz: movable frames, foundation comb, the honey extractor, and the introduction and propagation of new races of bees. Of these it is difficult to deter mine which has had most to do in placing bee-keeping among the important industries of our land. It is certain, however, that the last-named, viz: introduction of new races, is not the least important. These are chiefly Italians Cypriens, Holy Land or Syrian and Car nolians. Of these, Italians have been the longest known and most extensively used, they hold their own well, and are first in the estimation of bee-keepers generally. Cyprians and Holy Lands possess good qualities, and are great honey gatherers, but their cross disposition will prevent them from becoming favorites and in general use.

Carnolians are said to be prolific, good honey gatherers, and are distinguished for their gentleness. They come from Carnolia, a province of Italy, situate at the head of the Gulf of Venice.

Italian bees compare with the German or common black bees as follows: They are better tempered, much more prolific and consequently cast larger swarms; they are larger, heavier, more energetic, have longer tongues and will work on red clover, hence they are better honey gatherers. They begin to work earlier in the spring but quit breeding earlier in the fall. Their hives are much less infested with moth, being strong and hardy they are not apt to be robbed, will stand the winter better and come out stronger in the spring. By hybridzing with blacks the quality of the latter is vastly improved, in fact hybrids possess all the valuable qualities of the pure Italians with the single exception of gentleness of disposition, though possibly are not crosser than pure blacks. During the past three years there have been kept in my yard and subjected to the same treatment, pure Italians, hybrids and blacks; as the result of experience there is no hesitancy in giving preference to pure and hybrid bees. It is my belief that they excel in all valuable qualities, four to one. Some breeders think that for making comb honey blacks make the nicest and whitest; this is not my belief; to me there is no perceptible difference in quality. Certainly Italians produce more than twice the

quantity. It is when the combs are raised out of the hive for the various manipulations necessary in changing from one hive to another, in introducing queens, dividing, and particularly when using the honey extractor that the superior qualities of Italians become evident. Open a hive of blacks, to find a queen, so soon as they feel the smoke they become perfectly demoralized. After filling with honey they leave the combs and huddle in dense clusters, and it is a day's work to find her. Italians remain perfectly quiet on the combs, the beautiful yellow queen conspicuous on account of her color and size, perhaps depositing her eggs, apparently not in the least concerned at your close proximity.

Some weeks since mention was made of large honey yields, and a statement that 100 pounds surplus was not uncommon. In support of that statement let me quote from a letter to the Gleanings, a bee journal published by Mr. Root of Ohio. The entire letter is too long give to here:

"From 211 colonies in the spring of 1883 we extracted 22,087 pounds of honey, an average of 1044 pounds per colony. The spring of 1884 we had 291 colonies, from 287 colonies we extracted age of 109 for the 287 extracted and 511 restore health and vigor.

pounds of comb honey from the four for comb honey."

The gentleman from whose letter I quote lives in Wisconsin, has had many losses from severe winters and other causes which do not affect us here in so, when from our midst is taken one Oregon. If we, in this State, will supply ourselves with the modern appliances of bee-keeping there is no reason eternal blessings of an hereafter, we why our honey yield should not be as feel assured that his work was finished, large as that of any State, but we cannot and he was called to his reward. keep them in apple boxes, barrels, and hives that cannot be opened except with a hammer and chissel and expect such great quantity. In the hive manufactured by me it is possible to obtain the best results in the yield of both extracted creatures, and never was man or beast and comb honey. Reports have been turned from his door, for his hospitality made to me of yields of 50 and 60 pounds amounted to religion, so generous and box honey made by common black bees, humane it was. And with deaf ears to by those who purchased hives of me

There is no reason why Oregon honey should not only supply the Oregon market, but be sent abroad, if our people will take proper measures therefor. White clover, from which the finest the best honey-producing plant in the

Letter From the Red Hills. FAIR VIEW, March 20, 1886.

Editor Willamette Farmer :

Not seeing any communications from this section of the country I thought I would attempt the task by saying that our school meeting passed off as usual and to the satisfaction of the majority. Electing a lady director and a lady clerk, and voting no tax for the first time in eleven years. We have been having considerable rain of late, with some four inches of snow on the 10th, that lay on one day. Our hills can boast of as fine a prospect for the coming crop as any porlooking better than now at this season of the year. I believe that all are through seeding in the hills. From here the be some time before seeding could be finished.

The prohibition party seems to have a goodly number of warm friends of both the old creeds in this part of the moral vineyard. I think they number equal to either of the other two parties, like blazes to get out ahead. I think they have a splendid ticket, one not easily objected to by everyone. If this meets your favor you can can use it.

J. H. ELGIN.

Clark County (W. T.) Agricultural Society.

VANCOUVER, W. T., March 18,'86.

Editor Willamette Farmer: Please notice in your paper that the Clark County, W. T., Agricultural and Mechanical Society will hold their annual fair this year on their grounds at Vancouver, beginning September 7th him as few men are valued, I must take and continuing five days, closing September 11th, 1886. Efforts are already being made to make this years fair better than ever held. Respectfully,

> GEO. C. HITCHCOCK, Sec. C. Co. A. and M. Society.

Attention is called to the advertisement of P. J. Armstrong & Co. in this issue. This firm is successors to Andrew Kelly, who has been long and favorably known in Salem and vicinity. We were in the carriage repository of this firm last week and were surprised with the extensive stock of home made buggies, carriages and hacks they have on hand. Just at this time a bargain as well as a first-class vehicle can be had very cheap. Apply at once and see the display. Repairing of all kinds done with neatness and dispatch.

By lack of open air exercise, and the want of sufficient care in the matter of lived as if he thought. diet, the whole physical mechanism becomes imparied during the winter. Ayer's Sarsaparilla is the proper remedy

IN MEMORIAM. A Tribute to the Memory of the Late Danie Clark

It is not to doubt the wisdom of an All-wise Creator that we say, "Why is it who seems most needed, most useful and necessary to all. But, believing in the

Many hearts have been stirred to give expressions of sympathy to the bereaved family, and to testify to the grandeur and nobility of one who was friend and father to the least and weakest of all censure, would never hear aught against friend or woman.

I was privileged to see the numerous pen tributes that came to comfort the widow in her trial-from the States and Territories, and while reading I fully realized how great the loss to friends, honey in the world is made, is found but found myself incapable of following generally throughout the valley, and is to the depths of the dear companion's sorrow. Companion she had been in the fullest sense of the word, for though (in his sensitive appreciation of all that was refined and gestle) he could not tolerate anything like masculinity in woman, he took his young wife to his confidence, and, while shielding her from immediate contact with business, gave her the true principles which constitute a man's word, his bond. Just how keenly she feels already the weight and responsities of both father and mother to her children none can know except those who have had and lost the truest friend a woman can have, a noble husband.

His thrifty independence and strong determination to do, when impelled by his sense of duty and right, is inherited tion of Oregon. I never saw wheat by his children, who have turned to bravely face the future with self-reliance. Although not a professing Christian, his every day life demonstrated it. Santiam bottom looks as though it would The practice of charity, whose mantle is widespread, his love of music, birds, and especially flowers, his abhorance of profanity, which he prohibited among his men, prove the presence of the true spirit of godliness. Referring to flowers again, must all that when I witnessed the gentle tenderness with which so you see somebody has got to whip he once gathered a few little wild flowers, I said mentally, here is one of the wonderful, priceless jewels to which God sometimes gives the rough, unpolished settings. His last days were full of untold suffering, but his chief thought was for the dear ones about him. He pittied them so-often saying, it is so much harder for those who are left than the one departing this life. He did not dread it, was even willing to go, only regretting it for their sakes.

And now, with a few paragraphs from the letters of loving friends who valued leave of a subject of which I could write much more and still feel that words were inadequate to express my apprecia-tion of the qualities of mind and heart which he possessed.

One writes

"I can hardly bring myself to realize, that your dear husband, and my most trusted and valued earthly friend has past beyond that mystic river, never more to meet and mingle with us in social converse in this life." Another says

"It was a privilege to know him, and how rich is yours and his childrens heritage, in having walked so intimately with him, how sweet are your memories, and how precious the influence he ever gave out.

A third contains the loving sentence. His life has been one of usefulness and his memory will be held sacred by all who knew him.

With a summing up of these superior traits of manhood, he seemed to have

"I expect to pass through this life but once, if, therefore, there be any kindness or good things I can show or do to my 31,283 pounds of honey; comb honey to take in the spring of the year to purify fellow beings, let me do it now, let me 206 pounds, from four colonies, an averthe blood, excite the liver to action, and not defer or neglect it, for I shall not pass this way again."