THE PHYLLOXERA.

THE VINEYARD'S MOST INSIDIOUS AND DESTRUCTIVE ENEMY.

The Nature, Multiplication and Habits of the Pest—The French Government's Efforts to Suppress It—Supposed Origin of the Destroyer.

Mme. Phylloxera Vastatrix, as the scientists have named her, is shown in actu flagrante, by many illustrations. In them she does not appear very formidable. She does the whole work of destruction, unaided by her spouse, resembling the busy housewife seen everywhere in France, who does all the work of the household, tends store, acts as nurse, seamstress and cook, while the man of the house, seldom seen at home, is probably talking politics at the cafe. But madam is always busy. Two ideas absorb all her energies; one is to raise a large, prolific family; the other is to find farms in her immediate vicinity for them all. Her ambitious efforts are always crowned with glorious success, so that her family and the name of Phylloxera become mighty in the land, oftener repeated than that of the great Napoleon.

Entomologists divide the phylloxera vastatrix into six different stages. First, the larva; second, apterous female; third, nymph; fourth, the winged state; fifth, sexual individuals; sixth, winter egg. As soon as an egg is hatched the larva begins to use its suckers on the tender radicals where it was laid by its mother; it then undergoes three, sometimes four, changes, similar to the casting of the skin or shell of a locust or crab; each time the skin cracks open on the back and falls off, after every molting the insect becoming a darker yellow. All this is accomplished within a few days; then it has reached maturity—now measuring three-fourths of a millimeter in width and one-half of a millimeter in length. It begins to lay two or three eggs every four or five days, if the temperature permits. In this state it lays from twenty-five to thirty eggs. These eggs hatch out in about ten days and give birth to a new generation of larvæ, which produce the apterous female. No male is known under this state. This is a mode of reproduction often met with in the inferior animals, being called parthenogenesis.

Professor Chauzit also says that a single larva is able to produce more than 20,000,000 of other larvæ from the month of April to November. During the month of July, in the central part of France, the nymphs are found in the roots of the vines. In this state the body is longer and of a deeper yellow, with two dark violet spots on each side; these neither eat nor lay eggs, but develop in about fifteen or twenty days into winged phylloxera, which resemble a little yellow fly with long wings. They are carried by the wind or fly to new fields of labor. These alight on the under side of the leaves and lay several eggs, either on the leaves, shoots or trunks of the vines. In about two weeks these eggs hatch out sexual individuals without proboscis or digestive organs. The females are larger than the males. They mate as soon as matured; then the male dies. After the former have laid one large egg apiece, which they deposit under the bark of wood over one year old, they die also. These eggs are the sixth state of the phylloxera, and are called winter eggs, because they are not hatched out until the following spring, when they produce a laying mother, who recommences the cycle.

On the winter egg depends the fate of the phylloxera. Professors Ballgani and Valery Mayet, of Paris and Montpelier, say that if the egg is destroyed the phylloxera will be exterminated, for the principal link in its chain of reproduction is broken, as those on the roots would die out if not re-enforced by the products of these eggs. One female is able to produce by the end of May 500 eggs. These, if hatched out safely, would be increased to 250,000 in one month. Now as there are five or six generations in one summer the enormous number of 62,500,000,000 will be reached, and if all the progeny of one phylloxera lived they would destroy one hectare of vines in a year.

Several means have been used to combat the pest; the most successful and expensive among them is that of submersion. Where vineyards can be kept under water for from forty to sixty days no phylloxera are found. Vineyards to be submerged must be on level ground and lie low; trenches are dug on the outskirts and banks thrown up so that the vines will be sunken; then large steam pumps force the water into the vineyard, which is kept covered to a depth of twenty or thirty inches during the entire period.

Another method is by fumigations of sulphur, but this is very costly and the results do not warrant the expenditure or its continuance. Sulphur carbonate of potassium and carbonate of sulphur are also used extensively. Neither exterminates the phylloxera; only holds them in check. These chemicals are injurious to the vines, impoverish the soil so much that heavy fertilizers are required to keep life in the plants and they destroy in a measure the weight, quality, yield and bouquet of the vine. Scientific men have used electricity, dynamite and petroleum in its different forms, but still the phylloxera lives. The French claim that the pest originated in the United States. It is certain that they were imported into France on American cuttings which were designed to give a hardier stock to the French vines. It is a well known fact that American roots plunge deeper and have more radicals than the French. On account of this increased root power greater vitality is given to the vine, more substance taken from the soil and a stronger resistance to all kinds of parasites and diseases, just as a strong, healthy man is able to overcome and fight diseases better than a weak one. American vines are being used in phylloxerated districts to graft French cuttings on, simply on account of the resisting power of their roots, but this is "hope deferred." Even American stock will succumb to the persistent ravages of its insidious foe.—Bordeaux Cor. Brooklyn Eagle.

A Hotel in Honduras.

Do you want to see how a Honduranian hotel is furnished? My room is on a corner fronting on a plaza and the sea on the north, and looking toward the ancient church across the street on the west. The floor is covered by one large oilcloth. In one corner is a camp cot. On the canvas a cotton sheet is spread; over that another sheet and a white bedspread or counterpane. Two pillows of feathers. Over all a musquito bar trimmed with lace and ornamented with tassels of colored worsted. On the light wooden washstands are bowls of porcelain, and beside them glass pitchers holding clear rain water drawn from an iron tank. In the public sitting room the floor is covered with oilcloth, as are all others on this floor, and there are six or eight rocking chairs of American make. A piano is at one side, and in the middle of the room a marble topped table is covered by pretty little shells from the beach. Such is a first class hotel in Trujillo. Worse places and worse fare have been known.—E. W. Perry in Chicago Times.

An experienced Adirondack guide estimates that there are now in the Adirondacks 60,000 deer, 2,000 bears and 100 wolves.

THE CLOSED DOOR.

No marble woman could have been more cold;
Her hands were clasped, her eyes were raised to mine
No tremor even stirred the shadow tall
Cast by the moon, upon the close cropped grass;
By which I knew no answering heart beat shook
Her soul, whose shadow stretched between us there.
But when I spoke upbraiding, passionate words,
And would have urged my spoilt, unhappy life,
"Farewell," she said, "Love stands aside to bless;
Love that would wrong would only prove a curse."
It was as if in some dark, stormy night,
Just as despair for light had filled the heart,
A door should open, and within should shine
The strong glare from a great red glowing forge.
—Temple Bar.

Buddhism in Burmah.

The reason given for the Burmese being permitted by their religion to eat all kinds of animal food is that Buddha, the founder, when he abolished caste distinctions at the same time abolished all restrictions on the variety of food to be eaten. The sacred cattle even were not excepted. These regulations created a wide gulf between the Buddhists and all other Oriental sects, the former being the only sect allowing such latitude. When Mohammed founded his religion, at a later date, he modeled it on that of the Hebrews, ordaining that the hog be especially an unclean animal, unfit for food and defiling any of the faithful coming into contact with one. This Buddhist freedom of choice has, however, proved highly beneficial to the Burmese race, for they are physically a fine, healthy, vigorous people.—San Francisco Chronicle.

His Wounded Dignity.

Admiral Hornby tells that when Lord Charles Beresford was but a small boy, he jumped overboard and rescued from drowning a stalwart Lancashire farmer. The man was grateful to his rescuer, but his countenance was overcast by a deep melancholy. Being reproached by his friends with his apparent dissatisfaction at having escaped from death, he exclaimed that he was thankful to the "middy" who had risked his life in order to save his; but, he added, with the consciousness of wounded dignity: "He's such a wee scrap of a chap."—New York Tribune.

A Self-Sacrificing Boarder.

A young man was boarding with a family more remarkable for "plain living" than "high thinking." The landlady remarked to the boarder one day, in gushing tones of gratitude: "Oh, Mr. Moore, I am so glad you came to stay with us! I don't know what we should have done without you. You are our only support."

"Indeed, madam," replied the long sufferer from sour bread and sloppy coffee, "I'm extremely glad that my money supports—er—somebody."—Youth's Companion.

Protection Against Fire.

Edward Atkinson, the Boston economist, has been moved by the recent fire and loss of life in Springfield to urge a law making property owners pecuniarily liable for damage to life or limbs resulting from defects in the construction of buildings, including insufficiency of fire escapes. If such a law were passed, he urges, property owners would shift their burden to the shoulders of the insurance companies, and the latter would see to it that life and limb are protected.—Detroit Free Press.

A Novel Postal Idea.

The very latest thing out in the way of stationery is an envelope of leather, which can be locked and sent through the mails without being tampered with. Upon the back of the envelope is a tiny staple of gold or silver, over which fits snugly a link of similar material attached to the flap, and this is secured by a dainty little padlock with a Yale lock. Upon the face is an open pocket for the insertion of a card bearing the address and the necessary postage stamp.—Chicago News.

Customers of the Haberdasher.

A well known gentleman's furnisher says that clergymen are among the most fastidious of his customers. They are debarred, of course, from wearing anything conspicuous or flashy, but they always choose the finest material. Silk underwear, made to order at a great cost, is a favorite thing with them. Famous or wealthy men, he says, as a rule, care least about dress. Wall street men dress most brilliantly, and actors dress most showily.—New York Tribune.

A New Theory of Divorce.

"I don't want to leave my husband," said an indignant wife, "for he is a real nice man and I like him. But once in a while he takes too much wine, to say nothing of other cheaper and stronger drinks, and then he is positively insufferable. If I could get some sort of divorce that would work when he is full and stop working when he is sober, that would answer my purpose perfectly. But a woman has mighty little show in this country."—Omaha World.

The Elevators of London.

The "lifts" of the Hotel Monopole, London, are worked by water from the mains of one of the hydraulic power companies, of which a number are established in England. By them water under pressure is carried beneath the streets and delivered to consumers at fixed rates. After doing the work required of it the water is returned to the central stations of the companies there to be used over again.—Home Journal.

The Head Waiter.

"Will you please tell me the name of the landlord of this hotel?" asked a Saratoga guest of the head waiter.

"De name ob de lan'lord, sah? H'm—de name ob de lan'lord—sorry, sah, but de name of de gem'man hab 'scaped me fer de moment; but my name am Mr. Alexander Johnsing, sah."—Youth's Companion.

Confidence Born of Wealth.

She (anxiously)—I am afraid, George dear, that when you speak to papa he may be very angry.

He (confidently)—I think not, when I show him this (taking a bank book out of his pocket).

She—Oh, George, let me look at it first.—Harper's Bazar.

An Editor's Minority.

Editor (to young man)—Your article, I am sorry to say, is hardly up to our standard.

Young Man—Why, my mother thinks it's clever, my wife thinks it's clever, and I think it's clever—three to one, sir; the balance is in my favor.—The Epoch.

A Pittsburg man calls his wife by the beautiful title, "Virtue," because she is her own reward. She does all the house work and gets no wages.

The dude is not muscular, but when he strikes an attitude it cripples it for life.—Binghamton Leader.

Opinion is a kind of half way house, where people meet to exchange lies and guess at what they don't understand.—Uncle Ezek.

Japan has adopted a standard time for the whole empire.