

How to Test and Cook Mushrooms.

Robt. Morris, Copeland, contributes to the February *Atlantic*, an article on "Edible Fungi," from which we take the following:

"The treatises on fungi give many methods of cooking, then to make them palatable, and most of the process is to compound, and to cure so many a multitude of condiments or spices, butter, etc., that a piece of sole leather so cooked would probably be very good. The simplest method is the best for real relief, and is an easy way of a test, to see whether any fungi which seems safe is fit to be worth eating. Peel off the outer skin, break out the stem, and set the cap top down on a hot stove. In the spot where the stem formerly stood put a little salt, and, if desired, a small bit of butter. Scatter some salt over the gills. When the butter or salt melts, the cooking is done; and as soon as it is cool enough the fungus should be eaten, carefully saving the juice. *Agaricus campestris* cooked in this way and eaten hot will make one wish that he was all mouth and palate, and that his mouth might never be in want of a 'mushroom.'"

This is the simple Irish way of cooking the mushroom, and all its allies can be treated in that way. Some fungi which do not seem particularly delicious when thus cooked will, when slowly stewed with a little butter and flour dredged in, with salt and butter, make most delicious stewes.

The mushrooms, *Cyathophorus*, *Morchella*, *Boletus*, indeed all of the fungi named, will stew together, and form a dish that alone, or as an entrée, can not be surpassed in delicacy of flavor and gastronomic satisfaction.

In testing new fungi, one eats a little of the cap with salt to ascertain whether it tastes good, and whether it affects the fauces of the throat disagreeably; when a burning or stinging sensation accompanies or follows the swallowing act no more, but take a copious dose of common salt, which generally neutralizes the poison. Some species which are unpleasant or slightly injurious when raw, lose their harsh qualities in cooking; but as there are so many that are delicious, it is well to give up the doubtful kinds.

Growing Tomatoes from Cuttings.

Sometime since it occurred to me that tomatoes might be grown from cuttings of the bearing vine, in the fall, and wintered in greenhouses in a bearing condition. Accordingly, I made several cuttings and potted them in four inch pots, when well rooted, and have since continued them in a bearing condition. They are now in fruit. The object in view is to have early bearing plants for spring, by the time they can go out of doors, instead of waiting for seedlings to acquire sufficient age to produce fruit.

The experiment thus far is a success. The plants are strong and thrifty, and more stocky than when grown from seed. They are disposed to branch at the axil of each leaf and need pruning and cutting back. No plant roots easier from cuttings than the tomato.—*Western Rural*.

LUNAR LIGHT UPON VEGETATION.—Mons. P. Charbonnier, in a communication to the *Journal d'Agriculture Pratique*, states that lunar light exerts a material influence upon aquatic vegetation. This fact was first noticed from the increased growth of cryptogamic vegetation upon the sides of an aquarium. It was observed that during the time of full moon it was much more luxuriant than during the time of the new moon. This led to other observations with regard to it, and it was found that aquatic vegetation generally is affected in a similar manner.

The "Geographical Garden" is one of the latest novelties in Paris. The idea seems to be to inform the masses a little more definitely as to the whereabouts of Persia. A space of ground is laid out to represent the "five quarters" of the world; the zones are separated by gravel-walks, and continents by rills. The geography of the globe can be learned in an afternoon, and a voyage around the world can be taken for one franc.

THREE KINDS OF MEN.—A clever author says there are three kinds of men in the world, "The wills the wools, and the wools." The first effect everything, the next oppose everything, and the last fail in everything. "I will" builds our railroads and steamboats; "I won't" don't believe in experiments and nonsense, while "I can't" grows weeds for wheat, and commonly ends his days in the court of bankruptcy.

Entomological Department.

The Ant Lion.

It was in April of 1872, while at Plymouth, Mass., with a party of friends in search of the Mayflower *Epigea repens*, that I was so fortunate as to capture a specimen of the larva of this insect. It was quite by accident that it came to my hands. A friend and myself were lounging by the roadside, for want of better employment thrusting our fingers into the light sand, when with a jerk and an exclamation my friend withdrew his hand to find this larva clinging with a most determined grip to a finger, and immediately dropped to the ground, however, and so quickly buried itself backward as to almost escape us, but a moment's lively digging revealed it again, and I secured it in a pill box. On my arrival at home I provided a jar with a few inches of dry sand in the bottom, and placed the larva in it; it at once buried itself, and though I waited several hours, hoping to witness the commencement of its pitfall, there was no movement in that direction; there was now and then a slight stir of the sand, and once or twice the head was thrust above the surface, but quickly withdrawn at the slightest movement on my part. I grew tired of watching and retired for the night, returning in the morning to find a completed pit. It was in the form of an inverted cone, about one and one-half inches in diameter and three-quarters deep, and as smooth as sand could be made. At the first glance I discovered no sign of the builder, but a closer inspection revealed a pair of mandibles and at the base of them a pair of eyes; the bearer of these was snugly ensconced in the sand. The mandibles were stretched to their widest capacity and reaching out opposite sides of the pit, so harmonizing in color with the sand as not to be readily noticed. In this position the larva would rest for hours unless disturbed, when it would withdraw from sight, but soon reappear and resume its watch.

My great interest, however, was in its method of taking its prey, and to witness this operation I provided a dozen or more ants of a small species, dropping them all into the pit at once; the larva with one sweep of its jaws secured three or four, and in a very short time killed or disabled them, but it soon dropped them and proceeded to kill most of the others before commencing its repast. Owing to their sluggish habit but very few succeeded in escaping. I was curious to see if the larva would attack as readily larger and more savage species, and the next day secured the largest specimens I could find of the Red Ant, *Formica sanguinea*—noted for its courage and ferocity. I dropped the largest of these on the sand in the jar, leaving it to find its way into the pit, which it soon did, hesitating a moment at the brink and then walking to the bottom. At the instant that the ant came within reach the larva closed its jaws upon one of its legs, and for a few moments I witnessed quite an exciting contest, the ant turning and twisting to find its adversary and biting savagely at everything within its reach, the larva endeavoring to draw far back into the sand, thereby protecting itself and pressing the ant so close to the surface as to allow but very little room for movement. The ant finally freed itself from the jaws of the larva, but did not at once succeed in leaving the pit; the larva instantly almost entirely uncoiled itself, and slashed right and left with its mandibles, seeming to be in a perfect fury at the loss of its prey. It also threw sand rapidly, but I could not see that the sand struck the ant except when it tried to escape up the sides of the pit back of the larva; then the sand invariably struck it and brought it to the bottom. The ant finally escaped, but the next day was again caught and its juices sucked dry.

In no instance did I see so much resistance offered as in this case, usually the ants seemed to realize that their adversary was one with which they could not cope. From my observations I concluded that the larva trusted rather to its long mandibles and the inability of its prey to readily climb the walls of the pit, than to sand throwing where it did not capture them in the first attempt, for I saw it throw sand in but few instances. I did not see it in the act of digging its pitfall but once; it was then midnight and I did not stay to witness the completion. I noticed only that it threw the sand out with its head, working very rapidly. I have sometimes left the room to return in less than an hour to find a completed pit where before there was no sign of it. From the day of capture to May 11th I kept it supplied with ants, of which it destroyed numbers every day, but on the latter date, either by design or accident, its pit was

filled level with the surface, and from this time to the time of pupating it dug none, remaining hidden most of the time and but once taking any food, then capturing an ant while concealed by a few grains of sand. On June 4th it constructed a round cocoon of silk, covered with grains of sand, and about one-half an inch in diameter. I presume it immediately pupated, but did not open the cocoon to ascertain. On July 8th the imago appeared and proved to be *Myrmelon immaculatus*.

In the larva state it is certainly in some respects the most interesting insect I have ever seen, its very activity and pugnacity exciting admiration; its mandibles were always ready to close upon any intruding object. When I first obtained it I wished to preserve a description and in order to accurately observe the colors I was obliged to remove the fine grains of sand that were entangled in the short hairs on the body; this I did with a camel's hair brush, an operation to which the larva decidedly objected, but it soon got its ground and fought it out, constantly seizing the brush between its mandibles, often in its attempts to reach it springing quite clear of the table.—H. Moody, of Malden, Mass., in the "Canadian Entomologist."

About Pain—Insect and Human.

The poet insists that a crushed insect

In corporal suffering finds a pang as great
As when a giant dies.

Good poetry, perhaps, but bad physiology and metaphysics. Man has a mind and an exquisitely sensitive nervous system. Beetles have neither, and as the pangs of human dissolution are mental as well as physical, and bodily pain is a nervous sensation, it is evident that an expiring bug, which has neither soul nor spinal marrow, cannot feel "a pang as great as when a giant dies." The lower the animal in the scale of creation, the less pain it must experience from injury and in the act of dying. If anglers believe that a worm or a minnow suffered the same torture from the implement as a human being, they would hardly consider it sport to fish with "live bait," and if epicures surmised that a stabbed oyster felt all the agonies of a stabbed Christian, they would be unable to swallow the glid victims by the dozen and smack their lips over the repast.

If the poet's doctrine were true, what a set of monsters we should be! To keep a larva in proper trim, it is necessary to draw a ponderous roller over it now and then. Every blade of grass supports its colony of insects—the sward is alive with creeping, wriggling, jumping things, over them goes the remorseless cylinder, slaying millions. If each endure the agony of a human death, what should we think of the gardener and his employer! But it is not so. Pain is relative. Creatures are susceptible of it in proportion to the perfection of their structures. A trout can feel more of it than an oyster; a quadruped more than a fish, an insect or a reptile; and man infinitely more than any of the soulless and comparatively brainless brutes.

Nevertheless, whoever wantonly kills or injures any living thing is not blameless. Many good people have their doubts about the innocence of angling—as a sport. People who fish to live, one can have nothing to say against, but people who live to fish, as the sentimental Isaac Walton did, and as some of his disciples do, are not so excusable. When a worm is pricked with a hook, he manifests unmistakable signs of not liking it. He may not experience the pangs that an animal with a backbone would suffer under the same circumstances, but he feels as a worm, and even a worm's feelings should be measurably respected.

It is generally supposed that circumstances being equal, one man suffers as much pain from a given amount of mutilation or injury as another. It is, nevertheless, unquestionable that men differ as materially with regard to their susceptibility to pain as in their capability of bearing it manfully. Everything in these cases depend upon the will. Much depends upon the fineness or the coarseness, the weakness or strength, of the sensorial organization. The patient who writhes and cries out under the surgeon's knife, may be as brave as he who lies silent and impassive on the operating table.—*Pacific Rural Press*.

A familiar acquaintance with our insect enemies and friends, in all their forms and disguises, will afford us much help in the discovery and proper application of the remedies for the depredations of the former, and will tend to remove the repugnance wherewith the latter are so commonly regarded.—*Harris*.