

of motion, yellow, hard, and in this state they contain, like larvæ, a white aromatic, milky juice, equally nutritious. The hen, pullet, young Pheasant, young Turkey and Guinea Fowl, are just as fond of the chrysalides as of the larvæ, and the same results are obtained. In the state of chrysalides, the motionless larvæ, like the larvæ of eggs of ants, can be preserved long enough to form a winter store, but a low temperature is requisite for maintenance of this state of things and for their preservation.

*Remarks.*—When the larvæ have consumed all the juices of the materials composing the pit, which are then dry and spongy, or when the moment assigned by Nature for these larvæ to be metamorphosed into chrysalides, has arrived, these larvæ endeavor in every possible way to leave the pit, in order, sometimes, to go away to a distance to find a burrow or soil light enough for them to penetrate and bury themselves deeply, to undergo their metamorphosis from larvæ into chrysalides and then into flies or perfect insects. When, then, larvæ find any outlet, they make their escape guided by their instinct. Their *modus operandi* is rather odd, and denotes a very high degree of the instinct of self-preservation in these tiny beings. When escape is possible they make a kind of noise; this is the trumpet note ordering an advance, and indicating the road to follow. Firstly, larvæ seem to be sent out as scouts to find safe quarters suitable for metamorphosis into perfect insects. All these preliminaries concluded, the larvæ sally forth in regiments, following each other like ants and sounding their trumpets; they clear a road for themselves, and all being well, they quickly evacuate their birth-place and leave nothing to the poultry-keeper to remunerate him for his labor and expenses. As we can observe, the fly-larva has the instinct of social animals, and imperious Nature teaches it that, for metamorphosis, it must find solitary hidden places with a suitable temperature. These wonderful instincts are a sufficient proof that the keeper should take all the precautions in construction which we have indicated.

*Seasons.*—Can these pits be constructed in all seasons? Yes. Yet one might think that during winter it would not be possible to construct them, and that thus it would be necessary to feed fowls during this season with grain and other food. This idea is merely the result of not following the instructions given. The results are not so quickly obtained in winter, but they can be completed. However, to hasten fermentation the quantity of fresh horse dung must be doubled. It has been proved for a long time that at all times of the year it is possible to obtain fly larvæ. Carnivorous flies, called also meat flies, like all those which

only live long enough to propagate the species, are destitute of digestive organs. When arrived at the state of fly, or perfect insect, they do not eat, therefore they seek no food. Their only occupation, during this ephemeral existence is laying to propagate by their eggs their species. This propagation and the places where these flies deposit their fertile eggs are yet, in the case of very many species, a mystery unsolved by man. We sometimes observe the carnivorous fly on butchers' meat, dead bodies, not to eat, as it has no digestive organs, and therefore could not do so, but merely to find some suitable place for hatching its eggs, and assuring the existence of its progeniture. Its instinct of propagation aids it to discover the means of penetrating even the most hidden anfractuosités of dead animals, the folding of a membrane, the interstices of the muscles. These are the favorite haunts of this fly when it finds dead bodies. In such favorable conditions as those offered by a pit composed as we described, this fly finds all the elements requisite to ensure success in hatching its eggs, which are laid with startling rapidity. These eggs are of microscopic diminutiveness. When you perceive one with the eye there is a group which gives birth to hundreds of larvæ. When constructing a pit in winter season, when the flies do not appear, we must suppose that the substances which compose it contain a considerable number of eggs, the hatching of which will result from the heat evolved by fermentation. It is impossible for us to explain certain facts. Firstly, facts, and then, if possible, an explanation of these facts. A naturalist wrote a complete volume about the common fly, but he had not the presumptuous boldness to undertake the complete history. As during winter in suitable circumstances there is a hatch, we can reasonably conclude that there are flies' eggs somewhere. Were these eggs deposited long ago, during the summer or previous autumn on the straw, in or on the soil, or even on all the substances which compose the pit? and does not the assemblage of all these substances cause a combination which constitutes the favorable element for hatching the eggs? These are, perhaps, problems requiring solutions. What is of importance, and what is certain, is that there is a hatch of flies' eggs and birth of larvæ during winter, when the pit is constructed as we described. This is a fact verified by ourselves and many others before us.

*Crop of Larvæ.*—When the larvæ have acquired their full development as we described, they must be given to the hens twice daily. To collect them with ease and profit you must open the door of the pit and with a wooden spade you take about double the amount you intend to give on