head of a pin; while others, ſuch as the elephant beetle, are as big as one’s fiſt. But the greateſt dif­ference among them is, that ſome are produced in a month, and in a ſingle ſeaſon go through all the ſtages of their exiſtence; while others take near four years to their production, and live as winged infects **a** year more.

The may-bug, dorr-beetle, or cock-chaffer, has, like all the reſt, a pair of cafes to its wings, which are of a reddiſh brown colour, ſprinkled with a whitiſh duſt, which eaſily comes off. In ſome years their necks are ſeen covered with a red plate, and in others with a black; theſe, however, are diſtinct ſorts, and their dif­ference is by no means accidental. The fore legs are very ſhort, and the better calculated for burrowing in the ground, where this infect makes its retreat. It is well known, for its evening buzz, to children; but ſtill more formidably introduced to the acquaintance of the huſhandman and gardener, for in ſome ſeaſons it has been found to ſwarm in ſuch numbers as to eat up eve­**ry** vegetable production.

The two ſexes in the may-bug are eaſily diſtinguiſhed from each other, by the ſuperior length of the tufts, at the end of the horns, in the male. They be­gin to copulate in ſummer; and at that ſeaſon they are ſeen joined together for a conſiderable time. They fly about in this ſtate, the one hanging pendant from the tail of the other. It has been ſuppoſed, that, like ſnails, they are hermaphrodites, as there ſeems to be a mutual inſertion.

The female being impregnated, quickly falls to bo­ring a hole into the ground, wherein to depoſit her bur­den. This is generally about half a foot deep; and in it ſhe places her eggs, which are of an oblong ſhape, with great regularity, one by the other. They are of **a** blight yellow colour, and no way wrapped up in a common covering, as ſome have imagined. When the female is lightened of her burden, ſhe again aſcends from her hole, to live, as before, upon leaves and vegetables, to buzz in the ſummer evening, and to lie hid among the branches of trees in the heat of the day.

In about three months after theſe eggs have been thus depoſited in the earth, the contained infect be­gins to break its ſhell, and a ſmall grub or maggot crawls forth, and feeds upon the roots of whatever vegetable it happens to be neareſt. All ſubſtances, of this kind, ſeem equally grateful; yet it is probable the mother infect has a choice among what kind of vege­tables ſhe ſhall depoſit her young. In this manner theſe voracious creatures continue in the worm ſtate for more than three years, devouring the roots of every plant they approach, and making their way tinder ground in queſt of food with great diſpatch and facility. At length they grow to above the ſize of a walnut, being a great thick white maggot with **a** red head, which is ſeen moſt frequently in new turn­ed earth, and which is ſo eagerly ſought after by birds of every ſpecies. When largeſt, they are found an inch and a half long, of a whitiſh yellow colour; with a body conſiſting of twelve ſegments or joints, on each fide of which there are nine breathing holes, and three red feet. The head is larger in proportion to the body, of a reddiſh colour, with a pincer before, and a ſemicircular lip, with which it cuts the roots of plants, and ſucks out their xnoiſture. As this inſect

lives entirely under ground, it has no occaſion for eyes*,* and accordingly it is found to have none; but is furniſhed with two feelers, which, like the crutch of a blind man, ſerve to direct its motions. Such is the form of this animal, that lives for years in the worm ſtate under ground, ſtill voracious, and every year changing its ſkin.

It is not till the end of the fourth year that this extraordinary infect prepares to emerge from its ſubterraneous abode, and even this is not effected but by a tedious preparation. About the latter end of autumn, the grub begins to perceive the approaches of its transformation: it then buries itſelf deeper and deeper in the earth, ſometimes ſix feet beneath the ſurface; and there forms itſelf a capacious apartment, the walls of which it renders very ſmooth and ſhining by the excretions of its body. Its abode being thus formed, it begins ſoon after to ſhorten itſelf, to ſwell, and to burſt its laſt ſkin in order to allume the form of a chryſalis. This, in the beginning, appears of a yellowiſh colour, which heightens by degrees, till at laſt it is ſeen nearly red. Its exterior form plainly diſcovers all the veſtiges of the future winged infect, all the fore parts being diſtinctly ſeen; while, behind, the animal ſeems as if wrapped in ſwaddling clothes.

The young may-bug continues in this ſtate for about three months longer; and it is not till the begin­ning of January that the aurelia diveſts itſelf of all its impediments, and becomes a winged infect completely formed. Yet ſtill the animal is far from attaining its natural ſtrength, health, and appetite. It undergoes a kind of infant imbecility; and unlike moſt other in­fects, that the inſtant they become flies are arrived at their ſtate of full perfection, the may-bug continues feeble and ſickly. Its colour is much brighter than in the perfect animal; all its parts are ſoft; and its vora­cious nature ſeems for a while to have entirely ſorſaken it. As the animal is very often found in this ſtate, it is ſuppoſed, by thoſe unacquainted with its real hiſtory, that the old ones, of the former ſeaſon, have buried themſelves for the winter, in order to reviſit the ſun the enſuing ſummer. But the fact is, the old one never ſurvives the ſeaſon; but dies, like all the other winged tribe of infects, from the ſeverity of cold in winter.

About the latter end of May, theſe infects, after having lived for four years under ground, burſt from the earth when the firſt mild evening invites them abroad. They are at that time ſeen riſing from their long impriſonment, from living only upon roots, and. imbibing only the moiſture of the earth, to viſit the mildneſs of the ſummer air, to chooſe the ſweeteſt ve­getables for their banquet, and to drink the dew of the evening. Wherever an attentive obſerver then walks abroad, he will ſee them burſting up before him in his pathway, like ghoſts on a theatre. He will ſee every part of the earth, that had its ſurface beaten into hardneſs, perforated by their egreſſion. When the ſeaſon is favourable for them, they are ſeen by myriads buzzing along, hitting againſt every object that intercepts their flight. The mid-day ſun, how­ever, ſeems too powerful for their conſtitutions: they then lurk under the leaves and branches of ſome ſhady tree; but the willow ſeems particularly their molt favourite food; there they lurk in cluſters, and ſeldom