

wainscoting of the room, perhaps, in which the furniture stands is perforated in just the same way. If there is a beam running across the ceiling, that is perforated too; while the damage constantly increases year after year, until at last the wood crumbles into powder almost at a touch. And outside all the more recently opened holes is a tiny pile of very fine sawdust.

Of course this is not really the work of worms at all. Worms do live in wood, it is true, but only in wet and rotten wood out of doors, not in sound and dry wood indoors. You may find them lying up under the bark of a decaying stump which has been saturated by the rain, or buried among the loose fibres of a log which has for many months been lying upon the ground; but no worm that ever lived could bore its way into a solid beam of timber or an old oak table. The damage is really caused by the grubs of a tiny beetle. Queer little white maggot-like creatures they are, with six short and almost useless legs, and with heavy, clumsily built bodies curved into an almost semicircular form. They cannot walk (they lie, in point of fact, for the most part upon their sides), but can only drag themselves slowly and laboriously along their narrow tunnels; and each is furnished with a pair of stout, strong, horny jaws, with which, all its life long, it is incessantly cutting through the solid wood, while it feeds upon the tiny fragments which it chips away.

It seems a strange and far from nutritious diet—nothing but sawdust, of the driest possible description, day after day; yet the little grubs know no other food, and somehow manage to get exceedingly fat upon it. But it is more remarkable still that they should be able to dispense with moisture altogether. No matter how dry the wood may be, generation after generation of these odd little grubs will live in it and never drink, and yet never suffer from thirst.

For many months the little creatures feed and burrow, until at last they are fully fed. With one final effort they now make their way almost to the surface, so that only a very thin shell of wood separates them from the outside air. In this way they render their future task as perfect beetles, when the time comes for them to liberate themselves from their prisons, as simple and as easy as possible. Then they throw off their skins and take the form of chrysalids, which look like tiny mummies swathed in a winding-sheet of semi-transparent skin. They cannot move, for their limbs are packed away beneath this outer covering. They cannot eat, for they have no mouths at all. So for many weeks they lie without motion, patiently waiting; and as nourishment is still required, they support existence on the stores of fat which they laid up while they were grubs, and which now passes back, little by little, into their systems.

Then at last comes a further change. Once more the skin splits, and the perfect beetle makes its appearance. It does not attempt to leave its burrow,

however, for some little time, for its body is quite soft as yet, and its limbs are weak and almost useless. But day by day its skin becomes harder and its muscles grow stronger, till at last it is fitted for the remaining work of its life. Then it cuts its way out of the narrow prison in which it has for so long been lying concealed, and sets out in quest of a mate.

The search is conducted in a very simple way. The little beetle raises itself on its feet, and proceeds to tap with its jaws on the surface of the wood, half a dozen times or so in rapid succession. Then it stops for a few moments, and listens. Then the tapping is repeated, and so on again and again, until at last it hears an answering signal from perhaps the other side of the room.

The beetle, in fact, is a "death-watch"—the little insect whose call to its fellows has so often been regarded by superstitious people as the herald of approaching death. And no doubt as a nurse sits watching her patient in the silent hours of the night the tapping is often heard. But so it would be if there were no sick person in the house at all. One can almost always hear it if one happens to be lying awake at the time when the beetles appear; for the little insects go on calling to one another, and answering one another, all night long.

But there is a problem connected with these beetles which has never as yet received a solution. We know how they produce their queer little "ticking" sounds—by the exercise of a little care, in fact, one can watch them actually doing it; but we do *not* know how the signal is heard, for "death-watches" apparently have no ears. Very few insects possess these organs, so far as we can discover, and those which do possess them keep them in very singular places—on the sides of the body perhaps, or even low down on the front legs, quite close to the feet! But beetles in general, and death-watches in particular, appear to have no ears whatever.

It does indeed seem strange that in some ways we should be able to learn so much, and yet in others should know so little. We can tell the distance of a star, and measure the speed at which it is travelling through space; we can weigh the sun in our balances, and draw up a list of the substances of which it is composed; we can foretell the exact moment, thousands of years hence, when the shadow of the earth will creep over the moon and cause an eclipse;—yet here we are baffled—utterly and entirely baffled—in all our attempts to discover the ears of a beetle, which is undoubtedly able to hear!

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A READY ANSWER.—Bishop Samuel Wilberforce was once addressing a meeting in St. James's Hall, when a listener, in the hope of disturbing the Bishop, kept interrupting his eloquence with shouts of, "Speak up, my lord!" "I am already speaking up," replied the Bishop, in his most silvery tone; "I always speak up; and I decline to speak down to the level of the ill-mannered person in the gallery."