lococci; (5) to transmit from place to place destructive moulds." These facts further prove that the insect is in all probability an active agent in the souring of milk kept in kitchens and larders; and that it is undoubtedly a very important factor in the distribution of moulds to food and to numerous other articles, especially when they are kept in dark cupboards and cellars where cockroaches abound. The distribution and numbers of the cockroach are rapidly increasing, and unless preventive measures are adopted, the insect is likely in the course of time to become a very troublesome, and possibly a very dangerous domestic pest.

THE BOT, OR WARBLE FLY.

Amongst the things that both Britain and Germany want in this war is leather. "Anything," says Dr. Shipley, "that seriously destroys the continuity of the integument of our oxen, which interferes with the 'wholeness' of the hide, which is the basis of leather, clearly affects—and affects detrimentally—an important munition of war. The bot, or warble fly, does this. But it does more: its attacks materially lessen the value of the beef which potentially lies beneath the hide, and thus in a double sense the warble fly is the enemy of man, whether he be soldier or sailor. Further, its attacks seriously lessen the milk supply of the country."

We learn that the *œstridæ*, or bot or warble flies, "pass their larval stage within the tissues of some vertebrate host, and frequently in those of domesticated cattle, sometimes even in man himself. The harm caused by these larvæ, living as they do in the tissues of the body, beneath the skin, by piercing holes through the integument, or skin, whereby they make their exit from the 'warble' or subcutaneous tumour in which they have passed their latest larval stage, is almost incalculable."

Further, "the presence of the warble fly induces a mysterious fear, which rapidly spreads through a herd, and results in a general stampede—often referred to by cattle-breeders as the 'gad.' This terror communicates itself even to the 'stalled ox,' and cattle confined within cowsheds show symptoms of extraordinary unrest when the fly is abroad among their kin in the pastures."

Various treatments have been recommended, but "the tedious method of removing the grub from the tumour is the only safe one. . . . Once removed, the grub should be immediately destroyed, and some antiseptic, such as coal tar, applied to the lips of the vacated tumour."

The Mosquito.

If we say little about the mosquito, it is not because the five chapters devoted to the *Anopheles maculipennis* are not most fascinating, but because they should be read in their entirety. "There is," the author tells us, "no zoological distinction between a mosquito, a gnat, or a midge, but, as a matter of convenience, we might confine the term 'gnat' to the genus *Culex*, the term 'mosquito' to the genus *Anopheles*, and the term 'midge' to the genus *Ceratopogon* and its congeners, whose collation with the naked knees of the Highlander is said to have given rise to the 'Highland Fling.'

"There is no doubt about it that both the mosquito and the gnat are extraordinarily beautiful insects. This fact, however, has been veiled from the public, partly owing to their small size and more especially to their irritating bite, which causes the sufferer to kill a mosquito at sight rather than examine its fairy-like beauty or its fascinating dances in the air, far surpassing in grace and agility anything seen in the Russian ballét."

As is well known, the poison of malaria is conveyed by the *Anopheles* mosquito; yellow fever, on the other hand, by the *Stegomyia calopus*. Whether this disease arose primarily in Africa, and is part of the toll the American Continent has had to pay for the slave trade, or whether it was brought to the West Coast of Africa from the other side of the Atlantic, is not certain.

The Biscuit "Weevil."

"The first thing to notice about the biscuit weevil (Anobium paniceum) is that it is not a weevil at all." It is "a member of the family Ptinidae, and is closely allied to A. striatum, which makes the little round holes in wormeaten furniture so cleverly imitated by furniture-dealers. Another species of Anobium (recently re-christened Xestobium tessellatum), a somewhat larger insect, is destructive in church libraries and old houses. Their mysterious tappings (which are really efforts to attract the other sex-mere flirtations) are the cause of much superstitious dread in the nervous, and this species is known as the 'greater death watch.'

"The interest of the biscuit 'weevil' lies in its disastrous infestation of ships' biscuits, which frequently is so severe that the sailors' 'hard tack' is rendered uneatable."

For information as to the other minor horrors we must refer our readers to the book itself. They will assuredly not be disappointed.



