The developmental cycle of a protozoon is the series of processes through which it may pass in the time intervening between each fertilizing act. In many cases it includes an alternation of generations. That is, of states of being of the parasite in which sexual methods of reproduction alternate with a-sexual ones. The developmental cycle is often complicated by binary divisions, which may occur at any point, by cyst formation and by the intervention of a second host, as a necessary factor for the reproduction of a part of the cycle. There is indeed an alternation of generations in many of the parasites which interest us since they possess a sexual cycle which occurs in an insect host and an a-sexual one which is passed in a vertebrate host. As we shall see later, perhaps the best example of such an alternation of generations is the malarial parasite.

As might be expected, the morphology of parasites undergoing so complicated a development varies considerably. Not infrequently has it happened that different stages of development of a single organism have been described as separate parasites. Hence no parasite can be definitely classified until the whole of its life cycle is known.

So far we have spoken of protozoa in general. Let us now consider the diseases produced by individual species; we commence with the malarial parasites.

Since 500 B.C., before Hippocrates' time, malaria has been recognized as a clinical entity. Its close connection with swampy places has long been known and many theories have been proposed to account for this association, but it was not until 1898 that Ross proved that Malaria is an infectious disease and that it is transmitted from man to man by mosquitoes. Since then this fact has been confirmed by workers in many different parts of the world and nothing in medicine is more certain than that a genus of mosquito, the *Anophelinae,* transmits malaria; that, in nature, the disease can only be acquired through this insect; and that the mosquito can only become infected through biting an individual who harbours the parasite.

Some time before these discoveries were made, it was shown that the Filaria which causes Elephantiasis was transmitted by a