

HOW AN ARTHROPOD MOULTS

The arthropods are the invertebrates which have jointed legs and segmented bodies. This would include such things as lobsters, crabs, insects, and spiders. Because they all have a harder outer covering, rather than the soft skin animals have, how can they grow larger? It is done by moulting.

Looking at the chart below, here is how it is done: (A) The fully formed exoskeleton that they normally have. (B) Moulting begins as moulting fluid is exuded by the body to between the outer and inner part of their hard "skin." (C) The bottom part begins growing a new top part, as the lower half (the secondary chitinous layer) of the old top part is digested and absorbed. (D) The old top part is splitting off as, below it, the new exoskeleton has been completely made.

Now, just how long did all the arthropods in the world (and there are over half a million different species of them!) have to die in their hard exoskeleton and become extinct without com-

pleting their life cycle—until one of them figured out how to moult? And how did he tell the others? And how did he tell his offspring, since moulting was not in his DNA?

