

sionally rejecting the case which encloses it. At a certain time of the year, about the end of the spring, when food is plentiful, they begin to feel themselves ill at ease: they then probably seek the clefts of the rocks, and other close places, in which they can undergo, in concealment and security, a change which exposes them, in a defenceless state, to danger.

But we should have known nothing of the manner in which this great work is effected, had not the illustrious French naturalist, Reaumur, adopted methods which enabled him to ascertain their mode of proceeding. In the spring, in boxes pierced with holes, which he placed both in the river and in an apartment, he put the fresh-water cray-fish,* of the same genus as the lobster. He observed that when one of these was about to cast its crust, it rubbed its feet one against the other, and gave itself violent contortions. After these preparatory movements, it swelled out its body more than usual, and the first segment of its abdomen appeared more than commonly distant from the thorax. The membrane that united them now burst, and its new body appeared. After resting for some time, it recommenced agitating its legs and other parts, swelling to the utmost the parts covered by the thorax, which was thus elevated and separated from the base of the legs; the membrane which united it to the underside of the body burst asunder, and it only remained attached towards the mouth. In a few minutes, from this time, the animal was entirely stripped, except the legs. First the margin of the thorax was seen to separate from the first pair of legs; at that instant, drawing back its head after reiterated efforts, it disengaged its eyes from their cases, and all the other organs of the anterior part of the head; it next uncased one of its fore legs, or all or part of the legs of one side, which operation is so difficult that young ones sometimes die under it. When the legs are

* *Astacus fluviatilis*.