

tellest both—you might have done so; I had no wish but to see her happy."

I know not what I said—something incoherent, no doubt, for his words raised an idea that seemed to convulse me by its power of mingled agony and rapture.

"Is it possible, Mr. Esthwaite," asked my companion, "that you never read my daughter's heart? I have always considered your conduct as that of a man who felt bound to retreat from a love he had not the power to return."

"My God!" I cried, impelled into the agonized exclamation as the thought of my lost chance, my once possible happiness, passed upon me. Mr. Ingoldsby looked at me curiously. I don't know whether he understood me aright; if he did not, I had not the heart to explain myself.

"Well," he said; "it is a painful and delicate subject, let it pass! Regrets are vain now."

Let it pass! It did pass in time, but that last disclosure made all past agony seem feeble. Ethel had loved me! When I looked back I perceived, I felt that she had. Happiness had been offered me in its highest, fullest form, and I had turned my back upon it! Ethel had suffered then, and through me! I had labored in a vain show; I had offered up her peace at the same stern altar where I had consumed my own.

But my readers are weary of this querulous story; and I have done. I am calm and self-possessed again. Youth has passed long ago, and I am advancing with a quickening pace to another world. It is no breach of Christian fealty to say that I shall welcome the voice which shall call me from this hard warfare with self and sin, and shall whisper to my dying ear—"Enter into thy rest."

#### CURIOUS FACTS ABOUT SHELLFISH.

IT is well known that what naturalists call the *crustacea*, or in other words crabs, lobsters, and the like, change their shells at given intervals, at least until they arrive at a very advanced period of existence. This change is very complete, extending even to the corner of the eyes, to the lining membrane of the stomach and the grinding teeth, with which that stomach is furnished. During the years of growth (a period not satisfactorily determined) this change of an unyielding armor is necessary, inasmuch as without it the animal could not increase in size, but would be forced to remain no larger than what it was at first. The effect of the release from a hard unyielding encasement is to allow the expansion of the whole frame, which suddenly pushes forth its growth, and, this being attained, a new coat of armor is acquired, to be cast off again at a subsequent period. This moult of solid armor is termed by naturalists *exuviation*.

Reaumur, who watched the progress of *exuviation* on the river crayfish, describes it as attended with many efforts and much struggling. A few days previous to the commencement of the operation (early in autumn), the creature abstains from all solid nourishment, and the plates of shell on the back and tail will be found to offer

less than the usual resistance to the pressure of the finger. Shortly afterward the crayfish appears restless, and rubs its legs against each other; it then throws itself on its back, agitates its whole body, which appears to become distended, until some of the plates are partially burst and raised. Some degree of rest follows these first struggles, but after a short time the animal again exerts its muscular energy. The back plate is now seen to rise gradually from the legs beneath, and in about half an hour the animal has extricated itself from this portion of its shell. By drawing in its head, the antennæ, the eyes, and the legs are dragged out as from a case, but the extrication of the last, being the most difficult and complicated operation, is not effected without great effort, and occasionally even the loss of one or more limbs—a matter of the less consequence, as they will sprout forth again. The hinder parts are withdrawn with less difficulty, the tail-plates being thrown off by a forward motion, attended with a brisk and stretching action. The creature is now seen divested of its armor, which is cast off, appearing unbroken as if no struggle had ever taken place within it.

In the prawn and the shrimp, the process of *exuviation* has not, we believe, been rigidly watched.

In the lobster, the circumstances attending *exuviation*, as detailed by Mr. Couch, are different, and this fact is the more surprising when we consider how closely allied the river crayfish is to the marine lobster. The lobster, to the last, is ravenous and vigorous; and instances have been known in which, enticed by the bait, it has entered into the traps on the very eve of casting its shell, inasmuch that on the fisherman commencing to handle his prize, the animal has slipped away, leaving an empty husk as the only reward of his labor. A circumstance of this kind afforded Mr. Couch the opportunity of giving a minute description of the creature, when it made its escape (for escape it did), to the no small annoyance of the fisherman, who had calculated on the possession of a prize somewhat above the ordinary magnitude. It does not appear that any extraordinary struggles or contortions have been observed in the lobster when engaged in delivering itself from its trammels, or that the time of moulting is protracted, as in the case with the river crayfish; moreover it is certain that when delivered from its shell, it possesses great activity in effecting its escape.

Reverting to the specimen examined by Mr. Couch, it was found that the case of the horns and feelers was perfect to their minutest extremity; the sheath of the eye-stalk, and the transparent covering of the eyes were uninjured; the joints of the back part of the body with the tail plates were all joined together, and the parts beneath the snout, including the jaws, foot-jaws, nipping claws, and legs, with the breast plate, the lining of the stomach, etc., formed one connected portion. But how was the escape of the animal from its too tightly braced armor effected?

Through the middle of the great back plate ran a line as straight as if it had been cut with a knife, and evidently formed by a natural process of separation. Through this aperture, when expanded, the animal had made its escape.

In the common crab, the exuviation takes place by a separation of the broad back plate from the under plate, the animal lying on its back at the time; this division being effected, the limbs and other parts are easily withdrawn from their sheath. It must be observed, however, that previously to this process, both in the crab, the lobster, and others, the flesh on the claws of the animal shrinks most considerably, otherwise the contents of the great claws in particular could not be extricated, for it does not appear that the shells of the claws in the crab or lobster are split open. The crab when newly extricated somewhat resembles a lump of dough inclosed in skin, and has at first only sufficient strength to enable it to crawl to some place of safety. There it takes as much fluid as will suffice to distend the whole body and its skin or membrane-like covering which is now delicate, flexible, and elastic. There is, in short, a sudden expansion of growth, previous to the growth of the fresh plates of armor, which are, of course, adapted to the newly acquired bulk of the animal.

In the earlier stages of life, the exuviation and sudden pushing forward of growth occur several times in the course of the year, but, as the animal advances toward maturity, they take place at more and more distant intervals, till at last exuviation either ceases or occurs only after lengthened periods. We suspect that after a certain time it ceases, because we have ourselves minutely examined a large Norway lobster, whose back plate formed a bed, upon which a multitude of full-grown mussels were firmly attached, like a phalanx in dense array, presenting a curious picture. In the British Museum, specimens of crabs are to be seen, the back plates of which are covered with a close mass of oysters or mussels; and Mr. Couch has found oysters  $2\frac{1}{2}$  inches in length, attached to the back plate of living crabs.

It has been stated that the crab, the lobster, and others, devour their cast-off covering; we greatly doubt this. We possess the stomach of a marine crayfish, filled with the fragments, minutely ground, of shell, apparently either of its own species or a lobster; but this does not prove the statement; it merely informs us that these shell-fish prey upon each other, the weaker falling victims to the stronger. We do not, however, positively deny the fact in question, for we are well aware that the toad rolls up its cast-off cuticle (changed at certain intervals), and swallows it at a gulp.

There is another curious fact in the history of crustaceans, to which we may here advert; we allude to the power with which they are endowed of reproducing their limbs when lost by accident. The loss of a leg is of little consequence; so little so, that when suddenly alarmed,

a lobster will often throw off its claws with a jerk. Indeed, usually when a limb is injured, the animal breaks it off at the joint, second to its junction with the trunk, where the growth the most speedily and certainly commences. No pain seems to follow this strange operation; the wound is soon covered with a delicate skin, and a new claw is in due time produced. It remains, however, unprotected with a hard shell until the next time for changing the whole of it arrives, and the new limb seldom or never acquires the size of the corresponding claw, although equally perfect. An analogous circumstance occurs in many lizards, and especially the gecko, which quickly reproduces a lost tail.

### THE FAMILY FEUD.

A FRENCH STORY.

THE families of Piombo and Porta, in the island of Corsica, had long been divided by a hereditary feud, called in the language of the country a *vendetta*. It was similar to those enmities which in other parts of Europe were in former ages handed down from father to son, and, before the reign of civilization and of good laws, rendered it the first duty of the successor to revenge his ancestors upon the family and clan of their foes. When Corsica became part of France, an attempt was made to put an end to the dreadful crimes which these vendettas were perpetually causing, but the savage temperament of the nobles presented a powerful obstacle to the success of these efforts. France herself, torn by internal dissensions, could not enforce the supremacy of the law in a distant island, and it was not until Napoleon Bonaparte got the government of that country into his own hands, that a resolute determination was expressed of suppressing these outrages in his native island, their disastrous consequences being well known to that extraordinary individual in his earlier history. The last occasion upon which the revengeful spirit of the Corsicans was displayed in these family broils, took place about the time of Napoleon's election as First Consul of the French Republic, and resulted in the almost mutual extermination of the two races of Piombo and Porta. Such of the family of Piombo as escaped the general destruction took refuge in Paris, and claimed the protection of the First Consul. They consisted of the elder Piombo, his wife, and daughter, a young child of seven years of age, and, as the family of the Bonapartes had once been under the protection of the Piombos, Napoleon willingly received the fugitives, and promised to provide for their future maintenance.

Bartholomeo di Piombo, at the time of his escape to Paris, was verging upon his sixtieth year, but age had neither bent his lofty figure nor dulled the fierce expression of his eyes. He was distinguished even among his countrymen for the sternness and inflexibility of his temper; and if he were unrelenting in the pursuit of his enemies, he was equally steadfast in vindication of his friends. With his character, Napoleon