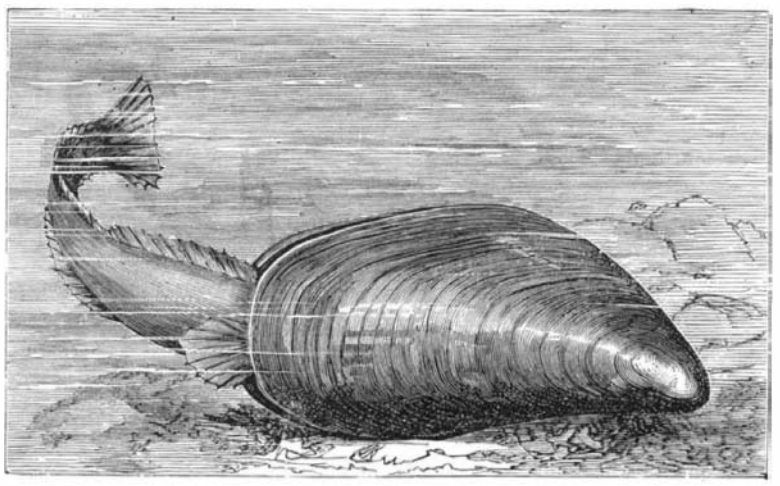
CURIOUS CAPTURE BY AN OYSTER AND A MUSSEL.

A correspondent of *Land and Water* lately forwarded to the editor of that journal a box containing a shanny and a mussel, which he describes as having been taken in the harbor at Looe, Cornwall, in exactly the position represented in the accompanying illustration. The shanny and mussel were taken by a fisherman who was gathering mussels for bait at Looe. Mussels are found in great numbers at the bottom of the harbor there, and the fishermen use a long-handled, four-pronged fork for catching them. A boat is moored over the spot on which the mussels are to be found, and the fork is employed to bring them from below into the boat. In the case in question the shanny and mussel were brought up as shown in our illustration. The fish was alive when taken, and its head firmly fixed in the mussel. This certainly may be considered a curious capture, and from the evidence it may be fairly assumed that the shanny, seeing a tempting mussel with its mouth open, was induced to pop his head in—an operation which the mussel doubtless resented by immediately closing its valves, retaining the fish in its deadly grasp.



SHANNY CAUGHT BY MUSSEL.

In the same periodical some time ago was recorded an even more extraordinary capture than the above, by Mr. Frank Buckland. We reproduce Mr. Buckland's remarks and the illustration which appeared at the time:

"Some time since, when examining the famous oyster beds at Helston, near Falmouth, Mr. Fred Hill, of Helston, was kind enough to accompany me and my friend Mr. Howard Fox, of Falmouth, in our expedition. Mr. Hill mentioned to me at the time that he had a curious specimen of a bird that had been caught by an oyster. The bird and oyster had been mounted in a case by Mr. Vingor, of Penzance. I have received from Mr. Hill a photograph of the event, which I have since had engraved. The history is that a woman who sells oysters went one morning to the Helford river and found the bird—a common rail—quite dead, with its beak held quite firmly by the oyster, which was still alive.

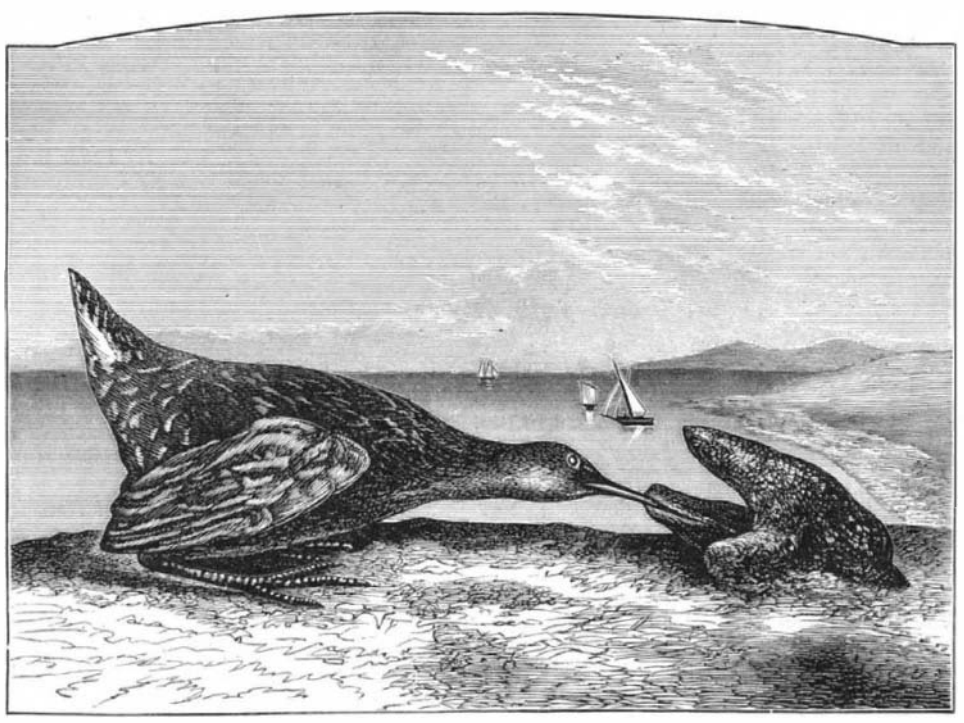
"The bird in all probability was wandering along the foreshore, looking for his dinner, and the oyster—possibly left longer by the tide than usual—was opening his shells waiting the incoming water. The hungry rail, seeing something that looked like a white and dainty bit of food, pecked at the body of the oyster, and probably pricked him sharply with his beak. The oyster then snapped his shells together as quick as a rat trap, and the poor bird instantly became a prisoner to die (or possibly get drowned as the tide rose) in his prison.

The History of Chalk Flints.

At a recent meeting of the Geological Society (England) a paper was read by Dr. Wallich, describing the origin, mode of formation, and causes of the stratification of the flints which occur in chalk. Taking as the basis of his conclusions the fact brought to notice by him in 1860, namely, that the whole of the protozoan life at the sea bed is strictly limited to the immediate surface layer of the muddy deposits, he pointed out in detail the successive stages of the flint formation, from the period when the chief portion of the silica of which they are composed was eliminated from the ocean water by the deep sea sponges, to the period when it became consolidated in layers or sheets conforming to the stratification of the chalk. In relation to this subject the author claimed to have sustained the following conclusions: 1. That the silica of flints is derived mainly from the sponge beds and sponge fields which exist in immense profusion over the areas occupied by the Globigerine or calcareous "ooze." 2. That the deep sea sponges, with their environment of protoplasmic matter, constitute by far the most important and essential factors in the production and stratification of the flints. 3. That, whereas nearly the whole of the carbonate of lime, derived partly from foraminiferaan other organisms that have lived and died at the bottom, and partly from such as have subsided to the bottom only after death, goes to build up the calcareous stratum, nearly the whole of the silica, whether derived from the deep sea sponges or from surface protozoa, goes to form the flints. 4. That the sponges are the only really important contributors to the flint formation that live and die at the sea bed. 5. That the flints are just as much an organic product as the chalk itself. 6. That the stratification of the flint is the immediate result of all sessile protozoan life being confined to the superficial layer of the muddy deposits. 7. That the substance which received the name of "Bathybius," and was declared to be an independent living moneron, is, in reality, sponge protoplasm. 8. That no valid *lithological* distinction exists between the chalk and the calcareous mud of the Atlantic; and *pro tanto*, therefore, the calcareous mud may be, and in all probability is, a continuation of the chalk formation.

Telegraph Wires "Crossed" by Magpies.

The *Journal of the Melbourne Telegraph Electrical Society* reports a curious case of interruption which occurred recently on two of the Western lines, Australia. An intermittent "cross" (one of the most troublesome faults to detect) existed for some little time on these lines, and a close inspection was found to be necessary. This resulted in the discovery that some magpies (Australian) had actually built a nest on one of the telegraph poles, and, among other materials used in its construction, had taken all the odd pieces of tie-wire which they could find within some distance of the spot; scraps which had been thrown aside by the line repairers were twisted up together in the most singular manner, considering that they had no pliers to work with excepting their beaks. Some of these pieces of wire touched one line, and some occasionally the other, causing the "cross" complained of. It appears that lately several attempts at nest building on the part of magpies on the telegraph poles on the plains in the Western District have been discovered.



RAIL CAUGHT BY OYSTER.

The International Postage Stamp.

The *Annales Industrielles* says that France and Belgium are now making negotiations in regard to an international postage stamp. If the project is realized the payment of small sums might be made in stamps. If the plan could be made universal not only could such sums be sent from one country in payment of amounts too small to send by postal order, but stamps could be sent to prepay answers to letters, which at present is impossible.

Growth of Plants.

The free evening lecture at the Working Men's College, Great Ormond street, London, on February 21, was given by Mr. Francis Darwin, M.D., a son of the well known naturalist. The growth of a plant, the lecturer said, might be likened to the growth of a snowball set rolling down a snow-covered hillside. Both plant and snowball grew in size by the addition of matter; but while, if the bulb of a hyacinth were placed in water and kept in the dark, it would grow in the ordinary sense of the word, in reality the plant would merely have taken stuff out of the bulb and arranged it in a different way, whereas in the growth of an oak tree from an acorn a quantity of new stuff was formed. These instances of growth suggested the questions, first, how a bulb or bean rearranged its matter in forming a plant, and, secondly, how all the new material was obtained that went to form a tree? He intended on that occasion to speak of only one half of the question: How the plant in growing arranged its material? First, it was necessary to know what a plant was made of. If 100 lb. weight of some growing plant were taken, say turnips, and the water driven off by drying, it will be found that the weight would have decreased by 90 lb., and that the solid, woody part remaining, about 10 lb. in weight, would nearly all burn away, leaving but a few ashes. In order to give some idea of the way in which this large quantity of water was held in the plant, Dr. Darwin compared the effect of water on dead matter, such as tea leaves or leather, with the effect of giving water to a growing plant—the stiff, dry tea leaves became limp and soft, while the drooping, flaccid stem of a living plant, when watered, became stiff and elastic. How could the plant build up a strong, stiff stem with so much of so unstable a material as water, and how did the water become a source of strength to the plant? To understand this they must know how the water was contained in the plant. The solid material was formed into little cavities, and these—an infinite number of little boxes, as it might be—were filled with water. The way in which the water might become a source of strength could be seen by forcing water into a flexible tube or bladder, or by blowing air into an empty glove. The pressure of the water contained within caused the walls of the cells to become stiff. There were other ways, too, in which this stiffness was obtained, the water getting into the texture of the woody stuff and stiffening it as water stiffened sailcloth. This state of things existed also in the pith, and each cell, being over-filled with water, was for ever trying to lengthen itself. Some of the results of these conditions in the plant were then explained by the use of two pieces of spiral spring, and for a more familiar example the audience were referred to the effect of splitting a dandelion stem. Each half curled over outward because the more elastic pith, trying to lengthen itself, was prevented from expanding on one side by the less elastic bark. With two pieces of spiral spring in a linen tube it was next explained how, when the pressure of water in the cells in the two halves of the pith was not equal, the stem did not grow straight. Not that plants bent accidentally or in a purposeless manner. On the contrary, when the plant bent it was with some distinct and useful object. To the explanation of this point, the rest of the lecture was directed. The directions and forms which the root and stem of a young growing plant might take were happily illustrated with a piece of whitened lead pipe of small bore put through a cork, which did duty for the bean. A great many theories had been offered to account for the fact that the root always tried to grow towards, and the stem away from the center of earth. Having related Andrew Knight's ingenious experiment with a revolving wheel, by which, with centrifugal force as a substitute for gravity, the plant was deceived and the direction of growth in seedlings was changed, the lecturer next dealt with the influence of light and damp on the growth of a plant. The stem was invariably shot out or bent aside in order to get at the light; and the root, with equal persistency and certainty, was sent to find moisture. It would have been noticed, Mr. Darwin said in conclusion, that he had, throughout, spoken of plants perceiving the light, and knowing where the center of the earth was, and had used other expressions of a similar kind, usually only applied to animals. He had done so with no idea of being paradoxical, but because he thought that by thinking of plants in this way we were more likely to learn what was going on within them. If we would understand the actions of an animal, we must know what was useful or not useful for that life, and it was quite as necessary to consider in the life of a plant of what use its actions were, and, in a certain sense, why it acted in a particular way.

ADVANCE IN THE PRICE OF DIRT.—In consequence of the rise in the prices of rags and other fibers, the price of South Carolina clay, used by paper makers to increase the weight of their goods, has lately been advanced two dollars per ton.