

blow, the waves may rage; but this small creature controls their fury, and stops a vessel, when chains and anchors would not hold it: and this it does, not by hard labor, but merely by adhering to it. Alas, for human vanity! when the turreted ships which man has built, that he may fight from castle-walls, at sea as well as at land, are held captive and motionless by a fish a foot and a half long! Such a fish is said to have stopped the admiral's ship at the battle of Actium, and compelled Antony to go into another. And in our own memory, one of these animals held fast the ship of Caius, the emperor, when he was sailing from Astura to Antium. The stopping of this ship, when all the rest of the fleet went on, caused surprise; but this did not last long, for some of the men jumped into the water to look for the fish, and found it sticking to the rudder; they showed it to Caius, who was indignant that this animal should interpose its prohibition to his progress, when impelled by four hundred rowers. It was like a slug; and had no power, after it was taken into the ship."

A very little advance in the power of thinking clearly on the force which it exerted in pulling, would have enabled the Romans to see that the ship and its rowers must pull the adhering fish by the hold the oars had upon the water; and that, except the fish had a hold equally strong on some external body, it could not resist this force.

3. *Indistinctness of Ideas shown in Architecture.*—Perhaps it may serve to illustrate still further the extent to which, under the Roman empire, men's notions of mechanical relations became faint, wavered, and disappeared, if we observe the change which took place in architecture. All architecture, to possess genuine beauty, must be mechanically consistent. The decorative members must represent a structure which has in it a principle of support and stability. Thus the Grecian colonnade was a straight horizontal beam, resting on vertical props; and the pediment imitated a frame like a roof, where oppositely inclined beams support each other. These forms of building were, therefore, proper models of art, because they implied supporting forces. But to be content with colonnades and pediments, which, though they imitated the forms of the Grecian ones, were destitute of their mechanical truth, belonged to the decline of art; and showed that men had lost the idea of force, and retained only that of shape. Yet this was what the architects of the Roman empire did. Under their hands, the pediment was severed at its vertex, and divided into separate halves, so that it was no longer a mechanical possibility. The entablature no longer lay straight from pillar to pillar, but, projecting over each