walls and the walls are not finished, or are being repaired, a circumstance that may occur after a fire, or similar disaster, then futtocks are sometimes used, but there will have to be poles made in the wall to take in the inner end of them. Sometimes, when the buildings are lofty, as in public halls, churches or theatres, it may be necessary to use two lengths of poles to raise the scaffold to sufficient height to get at the work requiring to be done. When this is the case, use the heavier poles below and make the first tier of scaffolding strong and secure before attempting to build the upper tier. Lash braces in the form of a St. Andrew's cross to each set of poles, placing the brace or tie at the foot of one pole and at the top of another. Then on the other side of the upright poles lash another pole as a brace, in reverse order to the first brace. Lash the braces in the center and well to every pole they come in contact with. Never make use of nails or spikes in a pole scaffolding, not even to nail boards to the poles, as by doing so the poles will soon be ruined. The second tier of scaffolding is formed by lashing poles to the poles of the first tier, bracing them in the same way as in the first tier. In many cases if the scaffolding is extensive it may be in some instances necessary to brace it horizontally as well as vertically to stiffen it and make it secure. Poles will be required to be lashed horizontally to the uprights to receive the planking for the platform, and great care should be exercised in the selection of these bearing poles, and in lashing them to the uprights, as they will require to be strong enough in every direction to bear all the strains and shocks that can possibly be cast on them. Bearing poles should not be too far apart, for that would necessitate the plank forming the platform to be too long and consequently too weak. The workmen who are to work on the scaffold should be able to judge to what distance apart the bearing poles should be placed, though, of course, the length of the plank will have something to do in regulating this distance.

The mainly important matter to be thought of in the erection of a scaffold is that men have to risk their lives and limbs on it and that true economy in its erection is that which makes it safe beyond a peradventure, and there should be no sparing of either time, labor or money in accomplishing that end.

Prof. Geikie has estimated the amount of sediment carried to the sea by the Thames in a year at 1,865,903 cubic feet, while it is estimated that the Mississippi deposits in the sea in a year solid matter weighing 812,500,000,000 pounds.