oak. With a full appreciation of the law of resistance that characterizes water, he gave it a shape or figure, arrived at, doubtless, after many experiments, of really fine proportions, and at the same time best adapted of all others to glide smoothly and rapidly over the surface of the water. The seams of the bark were nicely and closely united, cemented over with gums from the forests, which, by observation and experiment, he learned would resist the action of the water. The whole fabric was stiffened and made firm by a frame-work of wood, wisely adjusted to the purpose. We cannot fail to see that, in the construction of this canoe, no little skill and ingenuity were displayed, particularly when we remember that the whole was accomplished without the use of iron, steel, or any other metallic implement, but by tools made by the Indian himself, of hornblende, porphyry, chert or other hard stone, which he picked up on the surface of the earth.

To facilitate the movements of his canoe, the Indian sometimes called in the friendly aid of the winds by hoisting a sail, which he patiently manufactured by sewing together the membranous ribbons, which he had the wit to discover could be obtained from the intestines of wild beasts.[3]

The stone-arrow and spear-heads were made by a process of cleaving and chipping, requiring a mechanical skill, a precision and accuracy, not easily matched by the stone cutter of the present day, particularly if he were required to perform the same task with the same implements.

The arrow-heads which they used in war were so ingeniously contrived with barbs, and purposely attached so slenderly to their stock, that, when hurled by the bow, they pierced the flesh of an enemy, they could not be withdrawn, but, breaking from the shaft, remained buried in the wound, insuring the desired fatal result.

Observing the resistance of the atmosphere and the consequent irregular movement of his arrow, the Indian skillfully attached a feather at the end of it, imparting to it a steady and sustained movement through the air, thus increasing its effective range, and causing it to respond more perfectly to the exactness of his aim.

[3] Sails of this kind were in use by the Esquimaux, commonly esteemed the most inferior class of American Indians. *Vide* Frobisher's *Second Voyage*, Hakluyt, Vol. iii., p. 63.