

forward, whereby it often shall stave in some part of the ship). In such case the water that enters the leak flows to the bilge, which is always kept clear; and the mariners having ascertained where the damage is, empty the cargo from that compartment into those adjoining, for the planking is so well fitted that the water cannot pass from one compartment to another. They then stop the leak and replace the lading.<sup>3</sup>]

The fastenings are all of good iron nails and the sides are double, one plank laid over the other, and caulked outside and in. The planks are not pitched, for those people do not have any pitch, but they daub the sides with another matter, deemed by them far better than pitch; it is this. You see they take some lime and some chopped hemp, and these they knead together with a certain wood-oil; and when the three are thoroughly amalgamated, they hold like any glue. And with this mixture they do paint their ships.<sup>4</sup>

Each of their great ships requires at least 200 mariners [some of them 300]. They are indeed of great size, for one ship shall carry 5000 or 6000 baskets of pepper [and they used formerly to be larger than they are now]. And aboard these ships, you must know, when there is no wind they use sweeps, and these sweeps are so big that to pull them requires four mariners to each.<sup>5</sup> Every great ship has certain large barks or tenders attached to it; these are large enough to carry 1000 baskets of pepper, and carry 50 or 60 mariners apiece [some of them 80 or 100], and they are likewise moved by oars; they assist the great ship by towing her, at such times as her sweeps are in use [or even when she is under sail, if the wind be somewhat on the beam; not if the wind be astern, for then the sails of the big ship would take the wind out of those of the tenders, and she would run them down]. Each ship has two [or three] of these barks, but one is