

# Shipbuilders of the ancient world were familiar with the lathe

By NORMAN N. RUBIN

As the wood-turning lathe was known to the ancient Egyptians, they naturally used it in shipbuilding. The most important parts which they turned were masts and spars.

With the introduction of steam power ages later, spars could be turned from a log; but it was not long before the supply of suitably-sized timber had dwindled to the point when large masts and spars were built up, or pieced and coaked.

As late as 1921, with power equipment and hand tools, a relatively small wooden mast of 22 in. dia. and 100 ft length took twenty man-days to shape. In that year the *Scientific American* reported the development of a machine which would do the same job in three hours.

Turning was long used to produce many ship's parts which could not be produced by other means. It was also used to create artistic and beautiful shapes for utilitarian objects. An example is the belaying pin.

Most belaying pins shown on ship models are woefully out of scale, usually being two or three times too long. A 30 ft ketch would use 7 in. pins; a 160 ft schooner 14 in.; and a 200 ft ship 18 in. As a rough rule of thumb, the length of a belaying pin can be taken as 6 in. plus 6 in.-to-100 ft of ship length. The proportions of the different parts of a belaying pin are about as shown in the sketch.

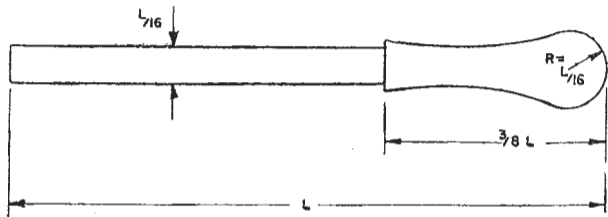
Stanchions were frequently turned for decorative purposes. Hold stanchions, out of sight between keelson and deck beams, were finished with a flourish in some of the prouder ships of the last century.

On taff-rails, monkey rails and poop stanchions were frequently turned, although some utilitarian craft were satisfied with square posts.

The actual shape of the rail stanchion is extremely elusive. Paintings and drawings of ships are not often to a scale large enough, or in sufficient detail, to do more than hint at the existence of a railing. The shape of the post is lost.

Old drawings do not often carry such minutiae; they are concerned with hull lines, rigging plans and





other salient features. It was not until the middle of the nineteenth century that photographs began to provide an accurate record.

Ship models must be used with discretion; be wary of artistic

licence on the part of the modeller.

From the several hundred volumes in my library, and from a bibliography of about 6,000 books of the sea, I have been able to extract only a baker's dozen of authentic stan-

chion shapes. Quite remarkable.

The advent of the iron and steel ship brought with it that most unglamorous thing, the pipe railing. Sometimes, indeed, the somewhat more appealing arrangement of pipe stanchions and wire or rope rails is to be found.

I present the various shapes and their obvious inspiration without comment.

As a general rule, the rail stanchions were spaced a distance on centrelines of about  $1\frac{1}{2}$  times the height, although spacings as much as twice this were sometimes found. The wider spacings usually occurred with lower railing heights. ■