The timbers generally are about 1 inch by 3/4 inch, and are sawn out of a clean piece of American elm, then planed and rounded. After being steamed they are fitted into the boat, and as soon as each is in position, and before it cools, it is nailed fast with copper nails. The gunwale is next fitted, a piece of American elm about 2 inches square ; a breast-hook is fitted forward, binding the gunwale, top strake, stern, and apron together ; and aft the gunwale and top strake are secured to the transom by either a wooden or iron knee. A waring or stringer, about 3 inches by 3/4 inch, of American elm, is then fitted on both sides of the boat, about 8 to 9 inches below the gunwale, on the top of which the thwarts or seats rest The thwarts are secured by knees, which are fastened with clench bolts

through the gunwale and top strake and also through the thwart and knee. The boat generally receives three coats of ρaiut and is then ready for service.

The following are the dimensions of boats in the British merchant

service :—

|  |  |  |  |
| --- | --- | --- | --- |
|  | Length. | Breadth. | Depth. |
| Lifeboat | 28 ft. 6 in. | 8 ft. 6 in. | 3 ft. 6 in. |
| Cutter | 26 ft. | 7 ft. | 3 ft. |
| Pinnace | 24 ft. | 6 ft. 6 in. | 2 ft. 8 in. |
| Gig | 18 ft. | 5 ft. 6 in. | 2 ft. 3 in. |
| Dingy | 16 ft. | 5 ft. 6 in. | 2 ft. 3 in. |

SHIPLEY, a town of England, in the West Riding of Yorkshire, is situated on the south bank of the Aire, in the neighbourhood of a picturesque pastoral country, at the junction of the Leeds and Bradford Railway with the Bradford, Skipton, and Colne line, 3 miles north of Brad­ford. The church of St Paul, an elegant structure in the Gothic style erected in 1820, was altered and improved in 1876. The manufacture of worsted is the principal industry, and there are large stone quarries in the neigh­bourhood. A local board was established in 1853. The population of the urban sanitary district (area 1406 acres) in 1871 was 11,757 and in 1881 it was 15,093.

SHIPPING. The island of Britain (to the shipping of which the present historical notice is mainly restricted) is well fitted to serve as a commercial depot, both by the number of its natural harbours and the variety of its pro­ducts. There is evidence that Phoenician traders visited it for tin, and in after times it served as one of the granaries of the Roman empire. On the other hand raw wool was the staple article of commerce in the Middle Ages, while the supremacy of English manufactures in modern days has contributed to the development of British shipping till it has grown out of all comparison with any­thing in ancient or mediæval times.

Britain must have been one of the most distant points that was visited by Phoenician or Carthaginian ships. Adventurous as their sailors were when compared with those of other races, and ready as they were to carry on trading on behalf of neighbouring states, it is not clear that they ever sailed across the Indian Ocean or ven­tured beyond the Persian Gulf, even in the service of the Egyptians (Brugsch). Their coasting habits led to the settlement of a chain of colonies along the Mediterranean shores, and that sea was wide enough to form a convenient barrier between the Greek and the Carthaginian settle­ments. When their empire was at length destroyed the Romans became the heirs of their enterprise, but do not appear to have pushed maritime adventure much further or opened out many new commercial connexions.

Though the Angle and Saxon tribes were doubtless skilled both in shipbuilding and in the management of their vessels at the time when they conquered Britain, these arts had greatly decayed during the four centuries that elapsed before the time of Alfred, who endeavoured to improve on existing models *(Eng. Chron.,* 897). Hence the necessity of resisting the Danes, with the subsequent fusion of Danish and other elements in our nationality, may be taken as marking the period when English shipping had its rise. Apart from incidental notices of communi­cation with other lands, there is clear evidence, from the early English laws, of efforts to encourage commerce, par­ticularly in the status which was accorded to traders and the protection afforded to merchant ships. The whole of these arrangements seem to imply that the merchant was the owner of the vessel, who “adventured” with his cargo, and sailed in his ship himself; but these voyages were probably undertaken for the most part to ports on the

other side of the Channel, as it does not appear that English ships penetrated to the Mediterranean till the time of the crusades.

The steady development of English shipping during the Norman and early. Plantagenet reigns may be inferred from the more frequent intercommunication with the Continent and the many evidences of the increasing importance of the commercial classes and trading towns. In the time of Edward III. the shipping interest suffered a temporary check from the removal of the staple to England, a step which was taken with the view of attract­ing foreign merchants to visit England (1353). This policy, however, was soon reversed, and the reign of that monarch was on the whole favourable to the development of shipping. He was himself fond of the sea, and com­manded in person in naval engagements, and by taking possession of Calais and enforcing his sovereignty over the narrow seas he rendered the times more favourable for the development of commerce. More than one of the noble families of England have descended from the mer­chant princes of the 14th century. By this time also the compass, which had been introduced in a rude form as early as the 12th century, had been improved and had come into common use. But many years were to elapse before the enterprise of the 15th and 16th centuries made the most of the new facilities for undertaking long voy­ages; and the fortunes of English shipping, as depicted by a contemporary *(Libell of Englishe Policy,* 1436), con­tinued to vary according to the state of political con­nexions with the Continent and the success of English monarchs in “keeping the narrow seas” free from the ravages of pirates. During this century, too, we hear far more of organizations of merchants to foreign parts, and of struggles between different bodies of traders. The “ Merchants of the Staple ” dealt in raw wool and the other staple commodities of the realm, which they exported to Calais ; the “ Merchant Adventurers,” a powerful asso­ciation which had developed out of a religious guild, dealt chiefly in woollen cloths, but they traded with any port where they could get a footing. This brought them into frequent collision with the “ Merchants of the House,” who had had a footing in London since before the Con­quest. The chief attempt at accommodation took place in the time of Edward IV. (1474), but the quarrels and re­prisals continued till the discovery of the New World had revolutionized trade, and the Hanse League, expelled by Elizabeth, were unable either to injure or to compete with English shipping.

Considering the interest which all the Tudor monarchs showed in developing shipping, @@1 and the proverbial bold­ness and enterprise of the Cabots, Raleigh, Drake, and other sailors, it is remarkable that England obtained so little footing at first in the new lands which were dis­covered by Columbus (1492) or along the route that was

@@@l The establishment of Trinity House by Henry VIII. for looking after pilots, buoys, &c., in 1512, is the most important result of his care for shipping.