of imposts. In Corry’s History of Bristol it is said, “the commerce and manufactures of Bristol appear to have made considerable progress during the fifteenth century, about the middle of which flourished the celebrated Canynge. This extraordinary man employed 2853 tons of shipping and 800 mariners during eight years. Two recommendatory letters were written by Henry VI. in 1449, one to the mas­ter-general of Prussia, and the other to the magistrates of Dantzic, in which the king styles Canynge his beloved emi­nent merchant of Bristol.”

Some doubt must always remain as to the actual size of the shipping of this remote period, as we cannot ascertain the bulk that was then considered as equivalent to a ton. It is probable that the tonnage was estimated according to the number of butts of wine that a vessel could carry. For we find references to ships sometimes by tonnage, and some­times by the “ portage” of so many butts.

This, however, is only a question as to exactness of size. In whatever way measured, Canynge’s ships must have been of very considerable dimensions. It is rather extraordinary, that at the unsettled period in question Bristol should have enjoyed such a state of commercial prosperity as the owner­ship of such shipping as that enumerated by William of Wor­cester necessarily involves. Bristol, for many centuries, was only second in mercantile importance to London ; but the civil wars which distracted the kingdom during a great part of the fifteenth century must have much retarded the in­crease both of the military and the mercantile navy of Eng­land ; and only when order was again re-established by the accession of Henry VII. to the throne in 1485, ought we to expect men’s minds to revert from the internal excite­ment of party strife to external affairs.

In this interval, in which England was torn by the wars of the houses of York and Lancaster, naval science had made more rapid strides than in any previous period of si­milar duration. The compass was not only known, but was generally adopted. Navigators could take observations by the use of an instrument called the astrolabe, invented by the Portuguese. The Spaniards and Portuguese were suf­ficiently advanced in the art of navigation to sail on a wind, and their smaller vessels, at least, were adapted for this ma­nœuvre. New maritime states had started into existence. The Netherlands, until then scarcely known, was under the Duke of Burgundy, the most formidable naval power in the north of Europe. “ His navy," says Philip de Commines, “ was so mighty and strong, that no man durst stir in those narrow seas for fear of it, making war upon the king of France’s subjects, and threatening them everywhere; his navy being stronger than that of France and the Earl of Warwick joined together.” Venice, in 1420, according to Denina in his Revolutions of Italy, supported 3000 merchant- ships, on board of which were 17,000 seamen. They em­ployed 300 sail of superior force, manned by 8000 seamen ; had forty-five carracks, with 11,000 men to navigate them ; and her arsenals employed 16,000 carpenters. Portugal had pushed her discoveries round the Cape, and Spain had added America to the world.

The progress of discovery by the Portuguese to the south and east, and by the Spaniards to the west, with the conse­quent rapid increase in the importance of these two powers, and the influence of their discoveries on the state of Europe, renders the fifteenth century probably the most important of modem history. In it was given the death-blow to the increase of the Saracenic power, and to that of the Medi­terranean states. The Turk, the Venetian, and the Genoese, had hitherto been the monopolizers of the commerce of the cast. The discovery of the passage round the Cape of G∞d Hope opened this trade to all nations. The commercial sceptre, and consequently the military sceptre, hitherto shared by the Turk, passed wholly from the infidel to the believer. The crescent sank before the cross.

There can be no doubt, also, that the “ *tormentas”* of the *“ grāo Cabo de boa Esperāça”* were a means of great im­provement in naval architecture ; for we find, that in conse­quence of the representations of Bartholomew Diaz, John II. of Portugal ordered ships to be constructed for the especial purpose of contending with the stormy seas of the Cape of Good Hope. The ships were built to form the squadron of Vasco de Gama, and were of small tonnage, from the very proper idea that small vessels were more adapted to prosecute researches in unknown seas than those of a large size, and consequent increased draught of water.

The squadron of Vasco de Gama consisted of three ships and a caravella. One of the ships was of the burthen of two hundred tons, another one hundred and twenty, and the third one hundred ; the caravella was of fifty tons. The largest of the ships was a victualler ; the smallest was in­tended to prosecute discovery up creeks and shallows ; and the other was for a display of force. As it is evident that it was not increase of dimensions which was to be the object in designing new vessels, the direction of improvement must have been towards perfecting their forms, strengthening their frames, and adding to the efficiency of their *materiel.* Por­tugal by these means became the most advanced state of Europe, in knowledge of the art of ship-building ; for we find that it was long supposed that the passage to India re­quired ships such as the Portuguese alone could build. Spain, in her career of discovery, conquest, and colonization across the mighty waters of the Atlantic, as if to assimilate the means to the vastness of her achievements, rapidly acquired the art of constructing ships of very large dimensions; and as long as she possessed a marine, her ships maintained this superiority.

We have a curious instance of the light in which naval enterprises were considered in England at this time, notwith­standing the earnest desire of the monarch to re-establish his navy, which had necessarily suffered from the long civil wars. There is a letter from Henry Vll. to the pope, pre­served in the Cottonian Library, excusing himself from send­ing succour against the Turk, from which the following is a quotation. “ The Galees commying from Vennes to Eng­land be commonly vij. monethes sailying, and sometimes more ;” and again, “ it should be May or they should be ready to saill, and it shall be the last end of Septembr or the said shippes shuld passe the Streits of Marrok ; and grete difficultie to fynde any Maryners hable to take the rule and governance of the said shippds sailying into so jeopardous and ferre parties.”

There is a drawing (Plate CCCCXLIX.) extant in the Pepysian Library in Magdalen College, Cambridge, of the Henri Grace à Dieu, built by the order of Henry VH., which Charnock has engraved in his History of Marine Architec­ture, and argues as to the general authenticity of the repre­sentation. He says, “ this vessel may be termed the parent of the British navy. This celebrated structure, the existence of which is recorded in many of the ancient chronicles, cost the king, by report, nearly 14,000 pounds.”

From this drawing may be traced the derivation **of** one or two names which have been preserved even to the present hour ; as, for instance, the “ yard-arm,” no doubt from the ends of the yards being armed with an iron hook. The cas­tellated work from which we have the term “ forecastle” is earlier than this; and the buckler-ports are most probably derived from a yet earlier period, when the bucklers of the knights were ranged along the sides of the ship, as they are represented in the illustrations of Froissart, and of the early chroniclers, and even in the Baveux Tapestry. Plate CCCCXLV.

“ The masts were five in number, inclusive of the bow­sprit, an usage which continued in the first-rates without alteration till nearly the end of the reign of King Charles I. ; they were without division, in conformity with those which had been in unimproved use from the earliest ages. **This**