|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Ships of 120 Guns.** | **Ships of 110 Guns.** | **Ships of 80 Guns.** | **Ships of 74 Guns.** | **Ships of 64 Guns.** | **Frigates carrying 18 Pounders.** | **Frigates carrying 12 Founders.** | **Corvettes of 20 Guns.** | **Advice boats, car­rying four**  **rounders.** |
| **Length from head to stern**  **Breadth from outside to out**  **side of the frame**  **Depth in hold** | **Feet. In. 196 6**  **50 0**  **25 0**  **17 6**  **14 0**  **25 0**  **22 8**  **Tons.**  **5246**  **2500** | **Feet.**  **186—185**  **49 6 in.**  **24 6**  **17 4**  **13 8**  **24 3**  **22 2**  **Tons.**  **4910**  **2400** | **Feet.**  **184—180**  **48 0 in.**  **23 9**  **17 0**  **12 0**  **22 6**  **21 0**  **Tons.**  **3825**  **1804** | **Feet. In. 170 0**  **44** 6  **22 0**  **15 8**  **10 10**  **21 6**  **19 10**  **Tons. 35481/2**  **1437** | **Feet. In. 156 0**  **41 0**  **20 0**  **14 6**  **11 1**  **19 9**  **18 9**  **Tons.**  **2300**  **1120** | **Feet. In.**  **144 0**  **36 6**  **18 0**  **12 0**  **8 7**  **16 0**  **15 2**  **Tons.**  **1479**  **665** | **Feet. In. 136 0**  **34 8**  **17 6**  **11 3**  **8 6**  **15 4**  **13 9**  **Tone,**  **1162**  **583** | **Feet. In. 112 0**  **28 4**  **14 4**  **9 6**  **8 5**  **13 3**  **11 9**  **Tons.**  **546**  **266** | **Feet. In. 80 0**  **24 0**  **12 0**  **8 4**  **8 0**  **11 6**  **10 0**  Tons  **266**  **141** |
| **Draught of water abaft when light**  **Draught of water forward when light**  **Draught of water abaft when laden**  **Draught of water forward when laden**  **Total weight of the ship and stores when victualled and furnished for a six months' cruise**  **Weight of the hull and masts.** |
|  | |  |  | | | | | | |

the Triumph and Valiant of seventy-four guns were built on the lines of the Invincible, a French seventy-four-gun ship, captured in 1747.

We give the dimensions of these ships, as they were ma- nifestations of an improved system, which, however, was not persevered in ; for, with the exception of occasionally building after a French or Spanish model, the English ships were scarcely altered from those built at the commencement of the century.

|  |  |  |
| --- | --- | --- |
|  | Royal  George. | Triumph and Valiant. |
| Length on the gun-deck | **Feet. In. 178** 0 | **Feet. In.** 171 3 |
| Length of the keel, for tonnage... | 143 54 | 138 8 |
| Breadth, extreme | 51 9 1/2 | 49 9 |
| Depth in hold | 21 6 | 21 3 |
| Burthen in tons | 2047 | 1826 |

There was still a very essential distinction between the navy of England and that of either France or Spain, which was this ; that until after 1763 neither of these nations had any three-deckers in their fleets. Their largest armament appears to have been eighty-four guns on two decks, while

we had third-rates which were three-deckers, as the Cambridge and Princess Amelia, launched in 1754 and 1757, and carrying only eighty-four guns. The capture of the Foudroyant, a French eighty-four on two decks, in 1758, caused a change in this respect, by furnishing the English with a model for a very superior class of men-of-war, which was adopted. Derrick, in his Memoirs of the Royal Navy, says, that “ no eighty-gun ship with three decks was built after the year 1757, no seventy-gun ship after 1766, nor any sixty-gun ship after 1759.”

During the peace that preceded the war with America, which commenced in the year 1768, the French had in­troduced three-deckers into their fleets, having found their eighty-fours on two decks to be no match for the more powerful of our three-deckers. Their first-rates were at this time generally of a hundred and ten guns on three decks. The Bretagne, one of these ships, was, according to Charnock, a hundred and ninety-six feet three inches long on the water line ; and her moulded breadth was fifty-three feet four inches. Her displacement, it is stated in Sewell’s Collection of Papers on Naval Architecture, was 4640 English tons. This can hardly be correct.

In 1786 the establishment of the French fleet was fixed by an ordinance, as according to the following table, which we extract from Charnock.

The ships of England continued throughout the wars of the reigns of George III. and George IV. notoriously inferior to those of France and Spain. The skill of our com- manders, and the indomitable courage of our scamen, event- ually succeeded in these, as in all former contests, in anni- hilating opposition, and in triumphantly asserting our naval supremacy. It cannot be denied that their task would have been comparatively easy, accompanied with less loss of life and expenditure of treasure, had their ships been more upon a par with those of their opponents.

Although so much attention appears to have been directed at various times to the improvement of the navy, not only by the servants of the crown officially connected with it, but by the sovereigns themselves, we have seen that this continued inferiority of our ships, to those of our opponents has been repeatedly asserted on undoubted tes- timony. The reason that all the attention thus bestowed failed in producing a corresponding beneficial effect was simply this ; that in England the speculative ideas of men, undoubtedly of sense and judgment, as may be seen from the quotations of their opinions which we have made, but men uninformed as to principles, were taken as the rules for guidance. In France, on the contrary, the aid of science was called in, and some of the greatest mathematiciansof the time turned their attention to the improve­ment of the shipping of that country ; and it is a most asto- nishing fact, that the experience of more than a century of acknowledged inferiority to France, also with the admission that her superiority was caused by the researches of her mathematicians, should have still left it a question in Eng- land, whether our ships shall be designed on speculative opinions, or from scientific deductions. Colbert employed an engineer of the name of Rénau d'Elisagaray, a protégé of the Count de Vermandois, whose first essay was in the adaptation of ships to carry bombs, to be used in the then projected armament against the piratical states of the Me- diterranean. Under the enlightened direction of Colbert, the French ships, which, by the ordinance of 1688, were much restricted in dimensions, were increased nearly one fourth in size, and every means taken which the then state of knowledge could suggest to insure a corresponding increase in good qualities. Rénau was, we believe, the first French author who wrote on the theory of ships. He was followed by the Bernoullis, by Père La Hoste, by Bou- guer, Euler, Don Jorje Juan, Romme, and a host of others, the effects of whose writings we have traced in the progress of the improvements they introduced into the navies of France and Spain, and forced the navy of England to imi-