longer and heavier than in the ships of the “ Majestic class, and were in barbettes 12 in. thick; in addition, there were twelve 6-in. Q.F. guns—all in casemates—sixteen 12-pdrs. and four torpedo tubes. These eight battleships were each provided with 20 Belleville boilers, developed 15,000 H.P., and had a speed of 18 knots. They carried 900 tons of coal at their normal displacement,

and had bunker space for *2200* tons; they were afterwards fitted to

burn oil as well as coal in thèir boilers, the double bottom compartments having been adapted for the stowage of oil in bulk.

The line of development, as traced above, may he taken to begin with the “ Collingwood ” and to run through the “ Admiral ” class, the “ Nile ” and “ Trafalgar,” the “ Royal Sovereign ” , class, the “ Majestic ” class, and the “ Formidable ” class to the “ London ” class, the most powerful type of warship constructed for the British navy up to the end of the 19th century. Branching off from this line, at a time when

battleships became much heavier (the “ Royal Sovereign ” class were of 2200 tons more ’displacement than the

Nile ” and“ Trafalgar”),

a series of smaller, faster,

and more lightly armed and armoured battleships than the series terminating with the “ London ” class was also built. These began with the “Barfleur” and “Centurion,” which, though contemporary with the “Royal Sovereign” class, were of 1440 tons less displacement ; they were followed by the “ Renown,” the “Canopus” and the “Duncan" class.

The six ships of the “ Canopus ” class may be regarded as a development of the Renown.” Begun in 1896, they were 12,950 tons in displacement, 390 ft. long, 74 ft. beam, and 26 ft. draught.

They had a 6-in. Harveyized belt, 14 ft. broad and 195 ft. long; two protective decks (anticipating the “ Formidable" in this respect); and two 12-in. barbettes, each carrying two wire-wound 12-in. guns, against the “ Renown’s ” 10-in. They also carried twelve 6-in. guns in 5-in. casemates, ten 12-pdrs., a number of smaller and machine guns, and four submerged torpedo tubes. They were the first battleships of the British navy to be fitted with water-tube

boilers; @@they had 20 Bellevilles, developed 13,500 H.P., and had a speed of 18¼ knots. They carried 1000 tons of coal at normal load, and had bunkers for 2300 tons. The ships of the “ Duncan ” class were longer and larger than those of the “ Canopus ” class. They were begun in July 1899, were of 14,000 tons displacement, 405 ft. long, 75 ft. 6 in. beam, 26 ft. 6 in. draught. They had a belt of Krupp steel, 7 in. thick amidships, tapering to 3 in. at bow, and two protective decks, as in the “ Canopus they had two barbettes, 11 in. thick, for four 12-in. guns, and carried twelve 6-in. Q.F. guns in 6-in. casemates on trie main and upper decks; also a number of smaller guns and four submerged torpedo tubes. They were provided with 24 Belleville boilers, would de­velop 18,000 H.P., and attain a speed of 19 knots. Their normal coal supply was 900 tons, and they had bunker capacity for 2000 tons. Six of these ships were built, one of them, the “ Montagu,” being lost on Lundy Island in 1906. Vessels of similar type had been built abroad, but there was a tendency to provide in them a more powerful secondary armament. In 1901 France built the “ République ” with eighteen 6·5-in. guns as her secondary armament; Italy laid down the “ Regina Elena,” carrying twelve 8-in. guns as her secondary armament ; and Germany the “ Braunschweig,” carrying four- teen 6∙7-in. and twelve 3∙4-in. guns as her secondary armament. In 1902 the United States followed with the “ Georgia,” carrying a secondary armament of eight 8-in. and twelve 6-in. guns, while two English vessels, the “ Libertad ” and “ Independencia,” laid down for Chile, carried no less than fourteen 7∙5-in. guns as their secondary armament. In 1902 the

“ King Edward VII.” (fig. 58, Plate XIV.), the last battleship for which Sir William White was responsible, was laid down, carrying four 12-in. guns, with a secondary armament of four 9·2-in. and ten 6-in. guns. She may be considered as an enlarged “ Duncan,” with the main-deck guns increased from eight to ten in number and enclosed in a battery having sides and ends pro­tected by 7-in. armour, with the backs of the casemates replaced by splinter bulkheads 1 to 2 in. in thickness, and with the four 6-in. guns in casemates on the upper deck replaced by four 45-ealibre 9·2-in. guns, protected by enclosed revolving armour shields. The

general arrangements of the guns and armour are shown in fig. 59.@@2

@@@1 These two vessels were afterwards purchased by the British government and became the “ Swiftsure" and “ Triumph ” (fig. 69, Plate XVIII.).

@@@2 The gun and armour diagrams and many particulars of modern vessels are taken by permission from *Brassey's Naval Annual,*