room, the condenser room, and warrant officer's stores. No. 4 compartment is occupied by the lower parts of the coal-bunkers. No. 5. compartment is the boiler room, and No. 6 compartment is the engine-room. No. 7 contains the after magazines, the bulkheads in both instances extending from the lower edge of the armour belt of the hull, at and below the water-line to the under part of the magazines. No. 8, 9, and 10 compartments are appropriated as provision and store rooms. Nos. 11 and 12 are taken up by the frames, or iron webwork of the stern. The whole of these lower compartments are covered in by 4in. wood planking laid upon massive rolled iron beams 12in. in depth, and weighing 42lb. to the foot, from the Batterly iron works, the deck thus formed being 4ft. 6in. below the load water-line.

The next division upward forms the longitudinal division and transverse compartments of the hull at and near the water-line, the upper parts being surrounded by the armoured belt protecting the topside of the hull where the shot from an enemy's gun may be expected by any chance to strike. The No. 1 compartment from forward is the cable tier; No. 2, engines to work the steam capstans and lavatories; No. 3, cable tier and lavatories; No. 4. coal-bunkers; Nos. 5, 6, 7, 8, and 9. officers' cabins and berthing for the crew; No. 11 compartment is taken up by the strengthening frames and iron network of the stern.

On the enormously strong rolled iron beams which span the hull over all, are riveted three thicknesses of 1in. iron plating and over this plating is laid 4ins. of oak planking.

The armoured belt protecting the upper sides and ends of the hull projects at right angles from the hull, after the fashion of the original American Monitor. Amidships it has a breadth of 9ft. 6in., but tapers off considerably at the force and after end—a graduated band. The timber backing upon which the armour-plating of this band is bolted is 18in. amidships, tapering off to 9in. at either end, at the stem and the stern. The armour-plating is bolted on in two stakes, the upper stake being twelve inches thick amidships, and tapering off gradually to eight inches at the stem and the stern. It only remains to complete our discription of the *Devastation's* hull to speak of the forecastle intended for the use of the crew generally when the *Devastation* is not in action. This is described by Mr. Reed as a "halt sunken" arrangement. The forecastle is, however, in fact raised above the level of the topsides of the hull until it has been given a freeboard of 9ft. 6in. One great peculiarity belonging to this arrangement is that the armoured belt round the topsides of the hull has been cut down to within 6in. of the load water line. This lightens the bows of a great weight, and gives a "lifting" power in a sea way, but it is seriously debateable whether a fighting machine like the *Devastation* would not be much more efficient, on the whole, with full bow armour-plating than without it. The coal bunkers have a stowage capacity of over 1700 tons.

The "breastwork" is a couple of armoured walls, built up on the upper deck of the hull starting from the break of the sunken forecastle forward of the fore turret, and terminating in a double elliptic end well aft of the after turret. They are 7ft. in height above the deck, have an extreme length of 74ft., and a breadth between the walls of 50ft. The armour-plating is 12in. in thickness in the wake of the turrets, and ten inches in other parts, bolted on the same thickness of backing (iron frames and wood) with 1¼in. inner skin iron plating. The deck covering is formed of 2in. iron plating with 4in. of oak planking. At sea, all means of ingress and egress to and from the hull are enclosed within these breastwork walls, and are carried up to the hurricane deck above, some 23ft. above the *Devastation's* deep line of flotation. Within either end of the breastwork armoured walls stand the turrets, each with its two 35 ton guns.

The turrets of the *Devastation* are each 31ft. 3in. in outside diameter, with an interior diameter of 24ft. 1in. Their rear faces are defended by an inch or so less thickness of armour-plating than their port or fighting faces, but a section of their construction on the latter, at the gunports, may be thus described, commencing from the outside faces:—1, nine inches of iron plating; 2, nine inches of Italian oak, set in iron frames 3, six inches of iron plating; 4, six inches of Italian oak, set in iron frames; 5, two three-quarter inch thickness of iron plating, as the inner skin; 6, iron frames, ten inches in depth; 7, rope mantlets, to protect the men working the guns, when in action, from injury by bolt nuts or rivets broken off and driven in by the impact of shot upon the turret. The turret have each a weight, without the guns and their carraiges, of close upon 300 tons. There is a speciality about their armour-plating which deserves notice. It will be remembered that when the *Glatton's* turret was fired upon at Portland by the *Hotspur's* 25 ton gun, one of the shots struck the turret wall at the centre from the deck upwards and at the horizontal junction of the two rings of plates forming the turret's defensive armour. The result was that the upper plate being forced upward and the lower plate downwards, the shot found its work of penetration much easier than it would have done had it struck in the centre of a plate, and considerable damage was inflicted upon the backing to the armour-plates and the inner skin of the turret. Such a like contingency has been well provided against with the *Devastations* turret armour. There are no *horizontal* joints in the armour-plating of the *Devastation's* turrets. Each plate has been rolled of sufficient breadth to cover the face of the turrets from the breastwork deck to their upper edge, and vertical joints only are thus made. The plates are, of course, of enormous size, are each wonderfully magnificent specimens of iron manufacture, have been expensive things to manufacture, involving the erection of special machinery for the purpose.

The broadside superstructure, built up of light iron and covered in with a deck laid upon short iron beams projecting from the top of the breast turret, encloses the breast work and terminates at the afterpart in a double ellipse, as we have previously observed to allow of full depression being given to the guns when fired immediately over the stern. The space inside this superstructure has been appropriated to offices in the 5 foot passage way on each side of the breastwork, and the larger spaces in the elliptic ends for the captain's and officer mess cabins. To render the spaces thus utilised as habitable as possible, all surfaces —breastwork, armoured wall, covered in deck, superstructure walls, iron doors, and stanchions—have been covered with Welch's patent cements and afterwards painted over. Granulated cork has been largely used with the cement as a non-conductor of heat or cold. This complete covering of the iron will also prevent the condensation which would otherwise occur on the walls and ceilings of the cabins and officers. Within the breastwork and between the two turrets stands the narrow dock-house, built of light iron, which, flanging off at each side and at the ends above the turrets, forms a platform or hurricane-deck, which should be perfectly free, on account of the height at which it is carried, from any intrusion by the waves in all weathers at sea. Here also rise the two funnels, the "conning" tower, and the "derrick" mast. At sea all hatchways leading down into the interior of the *Devastation* conduct only to the hurricane deck, and as the ports finding its way below have been pretty well provided against. The supply of air below will be, of course, artificial—by two fans driven by machinery. Four of Martin's anchors are carried in sloped recesses on the forecastle, two on each side, and two others of ordinary pattern on the low deck over each quarter.

Our contemporary adds.—"In *Naval Science*, published on the 1st inst., Commander W. Dawson. R.N., who served for some time a few years since on the staff of the *Excellent* Naval Gunnery School, has a paper upon, 'The Guns of the *Devastation*.' Admitting the excellence of the guns by Mr. Fraser as unquestionable and as unequalled Commander Dawson objects in the most decisive manner to the system upon which they are rifled, attributing to this the scoring or shearing of the steel tubes of the guns by the studs on the sides of the projectiles, the inaccuracy of flight of the latter, the want of bursting power by the shells, and the want of striking force. These defects are admitted, they are unavoidable so long as the present system of rifling is persisted in, and the more we increase the bore of our guns and give their projectiles the shot bearings of the present 'stud' system the greater will be found the damage to the grooved steel tube of the gun, the inaccuracy in flight of the projectiles, the tendency of the latter to break up, with decrease in brusting power and in striking force. Yet the remedy is a hand in the hexagonal system, and long-bearing surfaces of the projectiles, of Sir Joseph Whitworth. To go a step further in the same direction, if a Whitworth 28 ton gun can fire shot and shell possessing equal penetrating powers with those fired from the 35 ton Woolwich gun and at the some time having superior accuracy of flight, bursting power as shells, and initial velocity, why should not the *Thunderer* or *Fury* have their turrets supplied with those guns for practical comparison on al points with the present Woolwich gun?"

There is somthing more than a daily Ferry now between Europe and America. In fact, the rate is something like a steamer for every 12 hours from the port of Liverpool alone During the month of May 53 steamships left the Mersey, of which 17 belong to the Cunard Company, 11 to the Inman, 5 to the National, 5 to the White Star, 10 to the Allan, and 6 to the Guion Company, respectively. When to those are added the ships of the French and the two German lines, we get some idea of the increase of late in steam communication between the continents.

M. Gerfbeer, the French captain of Mobiles who was lately sentenced to death for "deserting to the enemy," and who defended hismself on the gaouud that his oath of allegiance only bound him to the Emperor, and not to the Government which superseded him, has had his sentence commuted to simple banishment for ten years.