



## OPEN LETTERS

### Fights between Ironclads.

I AM asked to give a chronological list of the engagements that have taken place between ironclads, and to assign to the fight of the *Huascar* and the Chilean vessels, described in the present number of *THE CENTURY*, its significance in the record of naval warfare of this sort. Following is a list of the engagements. Of course it is not a complete list, for ironclads have taken part in various battles where the part they played was insignificant.

Iron-clad floating batteries were used in the Crimean war; but they were simply water forts which were used against land forts. The beginning of modern ocean war-

fare—that is, of ocean warfare in which steam and armor, the ram, the torpedo, and the high-power gun are the prime factors—dates from our civil war. The first and the most important of all engagements between modern vessels was the epoch-making fight of the *Monitor* and the *Merrimac* in Hampton Roads, in March, 1862. Ironclads took part in many other actions in the civil war, notably off Charleston and Fort Fisher. The *Atlanta* and the *Albemarle* were Confederate iron-clad rams of note. The former was taken in an engagement with two monitors. The latter was sunk by Cushing's torpedo-boat. At Mobile Bay monitors took part in the attack on the iron-clad ram *Tennessee*.

Next in importance to the fight between the *Merri-*

war and the *Monitor* comes Tegetthoff's great victory off Lissa, where, for the first time, squadrons of ironclads fought each other, the Austrians using the ram with effect against their Italian foes. This was in 1866, and for the next thirteen years ironclads did very little. Then, in 1879, took place the famous fight of the *Huascar*, so well described in the present number of THE CENTURY. In 1882 there followed the English bombardment of Alexandria. In 1891, during the Chilean civil war, there occurred some very instructive actions between torpedo-boats and ironclads. A couple of years later there was a somewhat similar, but rather burlesque, civil war in Brazil; and in 1894 and 1895 occurred the fighting between the Japanese and Chinese—the most considerable fighting of the kind that had taken place since that off Lissa.

The fight in which the *Huascar* was conquered may properly be called a famous sea-fight. The *Huascar* was built in 1865, less than five years after the first ironclads that ever fought—the *Monitor* and the *Merrimac*—were built, and from twenty-five to thirty years before the great battle-ships which alone are now habitually called «modern» by experts, were constructed. She was built before some of the ships engaged in Tegetthoff's sea-fight off Lissa in 1866, and she was less formidable and less modern than they were. Her two chief opponents, the Chilean ironclads, were built in 1874. They were diminutive vessels, judged by the modern standards, and were probably inferior to such an ironclad as the *New Ironsides*, which served in the United States navy during the last year of the civil war, and fought at Fort Fisher. Compared with the *Merrimac* (although not with the *New Ironsides*), the *Huascar* might be called «modern»; but compared with the *Jawa*, she is very antiquated indeed. The gap between the first ironclads and the *Huascar* was much less than the gap between her and the giant battle-ships which form the fighting-line in the navies of to-day. She had a career so dramatic that it will always be kept in mind by men who prize instances of naval heroism such as was shown both by her Peruvian commander and her Chilean foes; but this is its chief interest. Her fights have an importance, just as all fights between ironclads have an importance, for the student of the newly formed and partly tried armored fleets of to-day; but it is only as the engagements during the later civil war in Chile, and the war between China and Japan, and the bombardment of Alexandria, possess an importance. All of these fights, by the way, including those in which the *Huascar* took part, are described at length in Mr. Wilson's admirable book on «Ironclads in Action»; and excellent reports concerning the *Huascar's* fights, and concerning the British bombardment of Alexandria, respectively, have been published by Lieutenant Mason and Captain Goodrich of the United States navy.

None of these fights was in any way as important as the fights in which ironclads took part during the American civil war, or as the sea-fight between the Austrians and Italians off Lissa. The encounter between the *Monitor* and the *Merrimac*, both genuine ironclads, marked a revolution in naval warfare as complete as the revolution which separated the era of row-galleys and hand-to-hand fighting from the era of sailing-ships which relied mainly on their artillery. Of less importance,

but still of great importance, was the fight off Lissa, inasmuch as it was the first in which squadrons of ironclads took part against each other, and the weaker fleet won, Tegetthoff with his own flag-ship, an ironclad, sinking one of the heaviest Italian ironclads.

The *Huascar*, like all the early armored ships, was clad in iron; but modern armored vessels are sheathed in steel. Sometimes the armor is backed with wood, whether fire-proof or not; sometimes it is not backed.

As yet the great modern navies are in the experimental stage, just as the sailing navies of the seventeenth century were in the experimental stage. When De Ruyter and Tromp fought Blake and Monk, the fleets on both sides consisted of all kinds of vessels, all of which took part in the mêlée. Custom had not crystallized the distinction between line-of-battle ships and frigates; indeed, there were no hard-and-fast lines between the different classes of ships. Nowadays, also, it is difficult to draw exact lines of demarcation among the multitudinous classes of ships; for every great nation has experimented with exceptional types of craft, and every great nation is apt to build along its own particular lines, even in the ship classes which are common to nearly all nations. Certain clearly recognized types, however, have appeared. All ships the vitals of which are defended by armor are called armored ships. But this definition has only a rough value; for if the armor is very light, it serves no purpose whatever against moderately powerful modern guns. A protected ship is one which has inside the outer works a steel deck covering its vital parts, but which has no outside armor. Virtually all modern vessels of any size are either armored or protected.

The heavy armored ship, the analogue of the old-style ship of the line, is called a battle-ship. Vessels of this class are usually from eight to fifteen thousand tons in size. They are very heavily armored, and carry huge guns of from ten to sixteen inches' caliber in their main batteries, while they have secondary batteries of numerous smaller guns, usually rapid-fire, of varying caliber. The armored cruiser represents another type, smaller than the battle-ship, with lighter armor and a lighter main battery, although her secondary battery may be even more formidable. The protected cruiser is usually much smaller, although in exceptional instances vessels of this type, like the English cruisers *Powerful* and *Terrible*, are as large as the largest battle-ships. These vessels usually have some armor in the shape of turrets, barbettes, sponsons, or gun-shields. A commerce-destructor is simply a large cruiser of great speed and coal endurance, but comparatively light armament, built primarily to run away rather than to fight, the purpose being to make war on an enemy's commerce, and to run from his battle-ships and fighting cruisers. The battle-ship is the mainstay of the navy; it is the ship which must gain control of the seas by helping to destroy the adversary's fleet; it is the only ship which can be put against his powerful ships or powerful fortresses. The heavy cruiser is handier and more seaworthy. It may fight in the line, but is more apt to be used against ships of its own class. Its cheapness and mobility, as compared with the battle-ship, are supposed to make amends for its inferiority in fighting power.

As said before, all these types of vessels grade into

one another. What are called second-class battle-ships in one navy may be called armored cruisers in another. Thus, in Mr. Laird Clowes's admirable little « Naval Pocket Book » we find all but one of the modern Spanish armor-clads classed as armored cruisers; yet they are really heavier vessels, both as regards tonnage, armor, and armament, than are the *Texas* and the *Maine*,<sup>1</sup> which we call second-class battle-ships, although Mr. Clowes counts the *Maine* also as a cruiser. Among the new ships building for the German navy there seems to be literally no difference between the battle-ships and the armored cruisers, so called, except that the latter are a little smaller, their armor a little thinner, and their guns somewhat fewer.

*Theodore Roosevelt.*