

THE BATTLE OF THE SEA OF JAPAN.

The battle of the Sea of Japan is destined to go down into naval history as one of the most momentous sea fights that has ever determined the destinies of nations. It was a three days' struggle, that commenced on the afternoon of May 27, continued through the night to the following Sunday morning; was waged in its various phases throughout that day and night, and was only concluded on the following morning by the capture or sinking or flight of the last of the great Baltic fleet. Of this formidable fleet but one vessel of any size or importance, the "Almaz," a fast, 3,000-ton cruiser of the "Novik" type, is known definitely to have escaped to the home port of Vladivostok. It was a fair "stand-up" fight between two antagonists, who had been preparing for each other in the expectation of just such a meeting as this for many long months preceding. On paper, at least, they were fairly equal in strength—that is, if the comparison be made on the basis of displacement, number of ships engaged, total weight of armor, and total weight of broadside fire delivered. But on this basis only can it be said that there was any equality. For while the Japanese fleet was homogeneous, and embodied in its make-up, in their proper relative proportion as to numbers, all the component elements of battleships, armored cruisers, protected cruisers, scouts, destroyers, and torpedo boats, that should go to form the composition of a modern fleet, the Russian fleet consisted of a heterogeneous collection (if we except their four splendid battleships of the "Borodino" class) of vessels of widely different type, age, and speed—a fatal defect, that undoubtedly had much to do with the awful disaster that overtook it. It is quite a question whether Rojestvensky would not have made a better fight with his five modern 18-knot battleships, had he not been encumbered with the three low-speed coast-defense ships of the "Admiral Apraxine" type, and the three obsolete armored cruisers "Nakhimoff," "Donskoi," and "Monomakh." Had it not been for the presence of this "old timber," with its small coal supply and limited radius, Rojestvensky would doubtless have passed into the Pacific, south of Japan, and attempted to gain Vladivostok by way of the Pacific Ocean. The coast defense vessels and older cruisers, however, could not carry sufficient coal for so long a trip, and it was out of the question for him to encumber himself, on his final dash, with colliers. Hence, in making the last move of this forlorn hope, there was nothing for him to do but dispatch his transports and colliers to the Chinese coast, and steam north in the attempt to force the passage of the Korean Straits.

And just here let us pay a fitting word of tribute to the part played by the two admirals in the months leading up to the final tragedy of this naval war. In our admiration of Togo, we are in danger of forgetting the unparalleled feat performed by Rojestvensky in bringing a fleet of half a hundred vessels intact through a voyage equal to nearly three-quarters the circumference of the globe, and being able to confront the victorious Japanese, flushed with recent victories, with a battle array which seemed approximately equal to their own. The continuous mental strain and the ever-present apprehensions of that extraordinary voyage can only be fully appreciated by the brother officers of Rojestvensky throughout the world. For, it must be remembered, there were three separate fleets sailing over three different routes that had to be gathered at certain rendezvous; that they were dependent for their mobility upon hundreds of transports and colliers, all of which were liable to capture by the enemy; and that from the time of setting out from the Baltic until the enemy was sighted on that fatal Saturday afternoon, Rojestvensky and his officers did not know but that at any moment the enemy might be encountered in force, or a death-dealing torpedo flotilla might launch its fatal strokes in a night attack. Moreover, it was known from the very start that there was no friendly port in which harborage might be sought for refitting or repair; that the only port of refuge was a single harbor in the far North, barring the path to which lay a victorious and confident enemy that had never known defeat. Too much praise cannot be given to Rojestvensky for his successful navigation from the Baltic to the Sea of Japan, and for the bold attack that he launched at the Japanese fleet on ground that had been carefully chosen by themselves. Of his tactics in the actual engagement it is too early to speak. We shall have to await the coming of fuller details, before it can be determined whether, having no alternative but to force the passage of the straits, the disposition and tactics of the Russian admiral were commendable or not. Once in the fight, however, Rojestvensky fought with all the heroic tenacity of his race. His flagship was sunk beneath his feet, and he was finally captured on the destroyer to which he had been transferred in a sorely wounded condition.

Of Admiral Togo it must be admitted that the self-restraint with which he awaited the coming of the Russians after they had been sighted in the Malacca Straits is fully as admirable as the terrific but well-controlled fury with which he attacked them in his

RUSSIAN SHIPS SUNK AND CAPTURED AT THE BATTLE OF THE SEA OF JAPAN.

* Vessels Lost.					
Name.	Class.	Displacement, Tons.	Speed, Knots.	Armament.	Crew.
Kniaz Suvaroff	Battleship	13,566	18.0	Four 12-in., twelve 6-in., four torpedo tubes	750
Imperator Alexander III.	Battleship	13,566	18.0	Four 12-in., twelve 6-in., four torpedo tubes	750
Borodino	Battleship	13,566	18.0	Four 12-in., twelve 6-in., four torpedo tubes	751
Oslabia	Battleship	12,674	18.3	Four 10-in., eleven 6-in., six torpedo tubes	732
Sissoi Veliky	Battleship	9,000	16.0	Four 12-in., six 6-in., six torpedo tubes	550
Navarin	Battleship	10,000	16.0	Four 12-in., eight 6-in., six torpedo tubes	630
Admiral Nakhimoff	Armored cruiser	8,524	18.5	Eight 8-in., ten 6-in., four torpedo tubes	567
Dmitri Donskoi	Armored cruiser	5,880	15.2	Six 6-in., ten 4.7-in., four torpedo tubes	510
Vladimir Monomakh	Armored cruiser	6,000	15.2	Five 8-in., twelve 6-in., two torpedo tubes	550
Admiral Oushakoff	Coast defense ship	4,648	16.0	Four 9-in., four 6-in., four torpedo tubes	318
Izumrud	Protected cruiser	3,206	22.0	Six 4.7-in., five torpedo tubes	340
Svietlana	Protected cruiser	3,900	20.2	Six 5.9-inch (Canet), four torpedo tubes	360
	Destroyers, six.				
	One repair ship.				
* Vessels Captured.					
Orel	Battleship	13,516	18.0	Four 12-in., twelve 6-in., four torpedo tubes	740
Imperator Nikolai I.	Battleship	9,672	14.8	Two 12-in., four 9-in., eight 6-in., six torpedo tubes	604
Gen. Ad. Apraxine	Coast defense ship	4,126	15.0	Three 10-in., four 6-in., four torpedo tubes	318
Admiral Seniavin	Coast defense ship	4,792	16.0	Four 9-in., four 6-in., four torpedo tubes	318
Biedovy	Destroyer	350	22.0	Torpedoes and quick-firers	10

*The cruisers Jemtchug, Oleg and Aurora escaped to Manila.

own chosen place. It is one of the marvels of the Japanese race that they combine such wide extremes of character. Fierce as a tiger in attack, they can be as patient in waiting the critical hour to strike. There were the strongest motives to induce Admiral Togo to go to the southward, meet the Russians in their scattered condition, and defeat them in detail. Not only the amateur strategist, but pretty nearly every naval expert who has spoken his mind, here and in Europe, predicted a battle in the Malacca Straits or the Chinese Sea, and the gradual decimation of the Baltic fleet as it struggled northward toward Vladivostok. Why, it was asked, do not the Japanese send their swift cruisers to intercept the colliers, upon which Rojestvensky depends so absolutely for the mobility of his ships? Why does not Togo attack the first division of the fleet, before it is strengthened by the re-enforcement of Nebogatoff and his squadron of ironclads and armored cruisers? Why does he not place his torpedo flotillas in some sheltering bay or inlet, and make a dash upon the fleet as it passes in the night?

The answer to these questions was made many months ago, when one of the officials in Tokio—we forget his name—on being asked if he thought the Baltic fleet would come out, significantly remarked, "We sincerely hope it will." In the light of subsequent events, it can scarcely be doubted that immediately upon the fall of Port Arthur and destruction of the first eastern squadron, Togo and his officers were anxious that Russia would dispatch to the Far East every vessel that she could possibly get in commission; for there can be little doubt, judging from their evidently pre-concerted plan of enticing the Russian fleet into the Sea of Japan, that they were perfectly satisfied that every ship that left the Baltic would be a ship lost to the Russian imperial navy. That they were right was proved with a completeness that must have astonished even the Japanese themselves. For out of that awful tragedy in the Sea of Japan there escaped to Vladivostok a solitary cruiser and one or two torpedo boats, to tell of the final obliteration not merely of the Russian fleet, but of the Russian navy itself—for outside of a few modern battleships locked up by treaty in the Black Sea, Russia's modern navy does not exist. Except for a few obsolete cruisers and battleships in the Baltic, and two or three battered cruisers at Vladivostok, Russia is to-day literally without a navy that she can use on the high seas.

The more complete story of the battle of the Sea of Japan must be reserved for a later day. From what has come to hand we know that Togo had taken station at the harbor of Masampo on the coast of Korea. His fleet consisted of four first-class battleships, one coast-defense vessel, eight armored cruisers, eleven protected cruisers, and four scout cruisers of between two and three thousand tons displacement. Of destroyers he had from twenty to twenty-five, and double that number of torpedo boats. Add to these possibly half a dozen submarines and twenty to thirty auxiliaries, and we have the total of the Japanese fleet. Against this Rojestvensky was advancing with eight battleships, of which five were modern, three coast-defense ships, three armored cruisers, and six protected cruisers. He probably had about a dozen torpedo-boat destroyers, two hospital ships, a repair ship, and a tank vessel. The Russian fleet was sighted at six o'clock on the morning of the 27th of May between Goto and Quelpart Islands, entering the Korean Straits, in double column, the battleships forming the starboard column, and the coast defenders, armored cruisers, and protected cruisers the port column. On the Japanese scouts getting in touch with the Russians, Admiral Togo was informed, by wireless telegraphy, of their approach, and the Japanese fleet moved eastward across the northerly end of Tsu Island, and turned south so as to bar the narrow strait between Tsu Island and the Japanese coast. Rojestvensky entered the eastern channel, and steamed steadily ahead

in the direction of the approaching Japanese fleet. Admiral Togo turned, and placing his fleet parallel with the Russians and apparently to the westward of them, repeated his usual tactics of a long-range running fight. His position gave him the great advantage that being to the westward of the Russians, the latter were at the enormous disadvantage of having the sun directly in their eyes. The effect of the Japanese fire was soon apparent and Rojestvensky's flagship, "Kniaz Suvaroff," settled by the head and finally sank. The Japanese appear to have gradually enveloped the Russians, and when they had shaken their morale and thrown their line into disorder, they drew in to closer range and began to wreck the ships piecemeal with an accurate and fearfully effective gunfire. The "Borodino" had her forward turret wrecked, her ammunition hoists shot away, 400 of her crew disabled, and finally, after being repeatedly hulled, was sunk by a torpedo. The "Alexander III.," "Oslabia" and "Navarin" shared her fate. Then night came down on the tragedy, and under its pall the torpedo divisions dashed in upon the huddled and disorganized Russians.

Meanwhile the contending fleets were moving to the northward, and at dawn the battle seems to have resolved itself into a veritable *melee*. Admiral Rojestvensky, who had been taken off the sinking "Suvaroff" by a torpedo boat, was overhauled and captured by one of the Japanese destroyers. Admiral Nebogatoff, with his coast defenders and the battleships "Orel" and "Nikolai I.," managed to get as far north as the Liancour Rocks, where, after the loss of the coast defender "Oushakoff," he surrendered with the "Nikolai I.," the battleship "Orel," and the coast defenders "Seniavin" and "Apraxine." By this time all of the battleships had been sunk or captured, and later the cruisers "Svietlana" and "Dmitri Donskoi" were sunk. All through the night of Sunday and well on into the opening day of the week the pursuit of the remnant of the flying squadron was continued, until Admiral Togo was ultimately able to announce to the Mikado that the great Baltic fleet was literally annihilated. The loss includes six battleships, three armored cruisers, one coast-defense vessel, two protected cruisers, six destroyers, and two special-service ships, including the invaluable repair ship "Kamschatka." The captures include the battleships "Nikolai I." and "Orel," two coast-defense vessels, and one destroyer, while there escaped the "Almaz," which arrived at Vladivostok, and the "Izumrud," which was run upon the rocks and destroyed by her commander. "Jemtchug," "Oleg," "Aurora" are at Manila. A converted cruiser and mine-laying ship seemed to have arrived at Wusung, China. The loss of life has been appalling, and is estimated at about 7,000 men, and some 4,000 have been captured, including Admirals Rojestvensky and Nebogatoff. The casualties to the Japanese fleet were astonishingly small. None of the battleships or cruisers appears to have been seriously hurt, and the losses are confined to three torpedo-boat destroyers and some 550 killed and wounded.

As the immediate result of the victory, the Japanese government has announced that the high seas are cleared of the enemy, and that Japanese shipping is now free to come and go as it pleases. The threatened interruption of communications with Manchuria is removed; men and supplies may be poured into Manchuria with greater freedom than ever, and the whole Japanese fleet is now available for the blockade of Vladivostok and its reduction in co-operation with the Japanese land forces.

A cubic foot of earth weighs about five and a half times as much as a cubic foot of water. A cubic mile of earth then weighs 25,649,300,000 tons. The volume of the earth is 259,880,000,000 cubic miles. The weight of the world without its atmosphere is 6,666,250,000,000,000,000,000 tons. If we add to this the weight of the atmosphere given above we get a grand total—6,666,255,819,600,000,000,000 tons. No wonder, says the American Machinist, Atlas became round-shouldered.

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INFORMATION
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Alexander III.

Sissoi Veliky
Oslabia.

Nakhimoff.

Flagship Kniaz Suvaroff.

Dmitri Donskoi.
Svietlana. Izumrud.

Borodino.

Navarin.
Monomakh.

RUSSIAN WARSHIPS DESTROYED IN THE BATTLE OF THE SEA OF JAPAN.—[See page 463.]