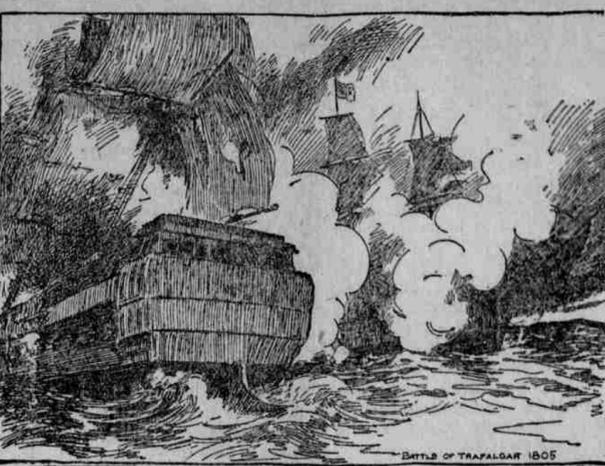


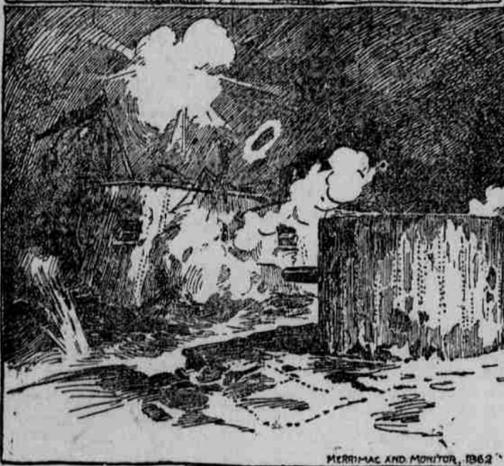
FAMOUS NAVAL BATTLES OF THE WORLD.



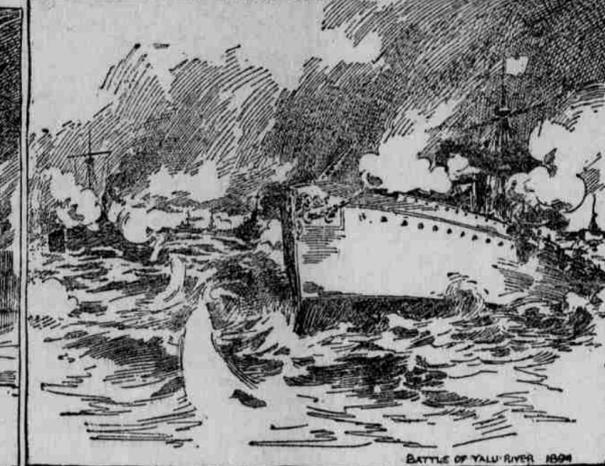
BATTLE OF MYLAE, B.C. 260



BATTLE OF TRAFALGAR 1805



MERRIMAC AND MONITOR, 1862



BATTLE OF YALU RIVER 1894

GREAT NAVAL BATTLES OF HISTORY

IMAGINE a fleet of 5,000 war vessels armed with more than 2,000 new style guns, some weighing 100 tons, and actually manned by 500,000 men, with as many reserves, and you have the naval force of the world marshaled in one grand body. Salamis and Manila are the naval antipodes of history. Salamis was the first great recorded battle. It drove the Persians from Greek soil. From crude galley ships, propelled by oars, naval progress has advanced to a stage which almost reaches the limit of terrible destruction. One battleship like the Oregon could have destroyed the Spanish armada and its English foe. There are guns on the Oregon which consume 1,000 pounds of gunpowder in a single discharge, while the most formidable guns in the armada consumed four and a half pounds to the charge.

Although ironclads were used to some extent in the civil war, in the Chinese-Japanese war, in minor engagements between the Peruvian and Chilean fleets and the Russo-Turkish war in 1877, the Spanish-American fight in the Philippines and at Santiago, marks the first conflict between ironclads in which the great sea monsters of modern warfare received a fair test.

In naval warfare it is the same as in land warfare. The whole history of the art has been divided into tactical periods ushered in more or less directly by some great tactical discovery. Such discoveries have consisted not only of new arrangements and maneuvers, but of improved weapons as well—improved defensive armor or improved motive power. When the Tyrrhenian Pessaeus added a sharp beak to the prow of the ancient galley he introduced a feature of greater tactical import than the oft-quoted invention of iron ramrods of the Desaugre or of the needle-gun by Mr. Dreyse. As the Pyrric phalanx succumbed to the more open array of the lighter weapons of the Roman legion and the Swiss heroson to the short swords of closed fighting of Gonsalvo's infantry, so the old line of battle was pierced and broken by the new tactics, which Paul Hoste, the Jesuit, the clerk of Eldin and Rodney and Nelson put into practice.

In the battle of Artemesium, about 500 B. C., an engagement which was of more political than military importance, which the Theban poet celebrated as the "place where the sons of Athens laid the shining groundwork of freedom," the Greeks adopted a very remarkable order of battle. Their fleet was inferior to that of the Persians, which was large enough to literally surround them. The Greeks, appreciating the fatality of adopting the old formation, formed their fleet in a circle, with their prows facing the surrounding enemy, and then darted forth to break the shipmade wall. As a result the Persians lost thirty vessels. The Greeks were nominally defeated, although the net result was in their favor. This was perhaps the first great naval battle of which we have any knowledge, although the battle of Salamis is usually credited as the first great recorded sea fight.

Hamming as a method of aggressive naval warfare is almost as old as naval history, and has not yet been abandoned, although the improvements in shipbuilding have rendered it less effective. The invention of gunpowder found a slow response in the methods of naval warfare, galleys forming a considerable part of the navy until the eighteenth century. In the reign of Edward III, when the English fought the French at Sluys, the former stood off on the starboard tack and maneuvered so as to turn on the pursuing French and, aided by the sun at their backs, lashed their vessels to the French fleet and crippled their antagonists with

lanes, swords and every sort of weapon they could lay their hands on.

**Same Mode of Attack.**  
In the fight between Pombroke and the Spanish Ray Diaz De Roxas, near Rochelle, although cannon were used almost for the first time on sea, the same mode of attack prevailed. Pombroke was made prisoner after four of the enemy's vessels had been lashed to his vessels. In fact, all the records of ancient naval warfare seem to indicate that sea fighting was little more than land fighting. The contending fleets would be lashed together and the men would fight hand to hand until one of the principals surrendered. The Spanish armada, with its 130 vessels, was little more than a series of Homeric duels. The ships were clumsy and unwieldy, communication was effected by means of small boats and most of the destruction was wrought by fireships. Guns cut little figure, and most of the Spanish vessels, in open sea. Even as late as 1692, when Admiral Russell of England engaged the French in a series of sea fights known as the battle of La Hague, he positively forbade his men to fire on the French until his opponent, Tourville, had taken his distance in battle array. One English admiral in a battle with the French forbade his men firing until the enemy had fired the first shot, an incident which furnishes a precedent for President McKinley's reported order to Captain Sampson.

It was not until forty years ago that the ironclad cut any figure in naval warfare. At the great battle of Trafalgar in 1805, in which Nelson was killed, only a handful of powder was used in a discharge, and the guns were all twelve and six pounders. It is a remarkable fact that England herself, the leader of the world as a sea fighter, weighed down by a cankerous stretch of peace, has not fired a shot, metaphorically speaking, in four decades. The bombardment of Alexandria in 1882 was not an exception, as England was then simply firing at a target, having no opposition whatever. Neither were the efforts of the Chileans and Peruvians in their late belligerency of any avail in affording a clue to the great problem of the ironclads. The attempts made by the vessels of China and Japan four years ago were anxiously awaited by the rest of the world, and, although they were on a more extended scale than any previously made, they still failed to furnish an exhibition of the real merits or demerits of the iron monsters. Japan's smaller ships got the better of China's heavier craft with the same ease with which American soldiers prevailed over Pekin's raw land levies.

**Originated in America.**  
It was America, however, that introduced the ironclad to the world, and the duels between the Monitor and the Merrimac were pathfinders in the new and uncertain warfare which girdles wooden boats and ships of fire. As a result of the Spanish war, the whole world has been thrown on the defensive. Almost immediately after the United States voted a naval appropriation of \$50,000,000 Russia set aside the same amount for the construction of men-of-war and England ordered built eighteen battleships to her annual budget of thirty-two cruisers, forty-one torpedo boat destroyers and eleven other war vessels. Next to the English come the French, with a total of 600 vessels of war, and the United States has quickly come to the front as a naval power. Her vessels are not as heavy as those of her consuls, but they excel in speed and American seamen have always ranked with the best in the world.

To recount the most famous naval battles in history is like recounting the most famous poets, military leaders and statesmen. It is all a matter of judgment, and no two lists would be alike. The following, however, are among the leaders:

**Artemesium**—Greeks virtually defeat Persians with superior fleet, 500 B. C.  
**Salamis**—Greeks, with 120 small war galleys, defeat Persians with 800 ships, the former losing forty galleys and the latter twenty galleys. Loss of life on both sides estimated from 5,000 to 50,000; 480 B. C.  
**Mytilene**—English defeat forty Spanish vessels and capture twenty-six, August, 1570.  
**Hardour**—English capture or destroy 500 French vessels, Aug. 15, 1416.  
**Bay of Lepanto**—Venetian and Spanish fleets defeat Turkish fleet under Pasha Ali; Christian fleet consisted of 250 ships and more than 50,000 men, and Turks commanded superior force; only thirty Turkish vessels escaped; 10,000 Turks were taken and 25,000 slain; Christians lost 14,000 men; 1571.  
**Gibraltar bay**—Dutch defeat the Spanish, April 25, 1607.  
**Dover straits**—Dutch destroy the English fleet Nov. 23, 1652.  
**Portsmouth**—English defeat the Dutch and destroy eleven men-of-war and thirty merchantmen, Feb. 18, 1653.  
**North Foreland**—One hundred English and Dutch men-of-war engaged; eleven Dutch taken and six sunk; June 2, 1653.  
**Coast of Holland**—English sink thirty Dutch men-of-war, July 30, 1653.  
**Santa Cruz**—Spanish ship burned by the English, April 20, 1595.  
**Harwich**—Dutch lose eighteen ships to the English, June 23, 1665.  
**Thames**—Dutch lose to the English twenty-four men-of-war, four admirals killed and 4,000 seamen, July 25, 1666.  
**Messina**—Spanish fleet, twenty-nine vessels, destroyed by the English, July 31, 1718.  
**Gibraltar**—English defeated combined fleets of Spain and France, Sept. 13, 1782.  
**St. Vincent**—English, with fifteen vessels, defeated Spanish with twenty-seven vessels, Feb. 13, 1797.  
**Battle of the Nile**—English under Nelson defeat the French and capture and destroy eight vessels and kill nearly 1,000 men under Admiral Bruys, Aug. 1, 1798.  
**Trafalgar**—Nelson sink nineteen French and Spanish vessels, fighting twenty-seven ships against thirty-three of the combined fleet; Nelson killed; Oct. 21, 1805.  
**Navarino**—The fleets of England, France and Russia destroy thirty Turkish men-of-war, Oct. 20, 1827.  
**Yalu River**—Japanese defeat Chinese; heavy losses on both sides, Chinese losing four vessels and 600 men; Sept. 17, 1894.

**Noted American Fights.**  
Among the noted American battles are the following:  
**Coast of Scotland**—Paul Jones captures the Serapis and Scarborough, seventy guns, Sept. 29, 1779.  
**Off St. Kitt's**—The Constellation, twenty-eight guns, captures the French L'Insurgente, forty guns, Feb. 9, 1779.  
**Coast of United States**—Constitution, forty-four guns, sinks the Guerriere, thirty-eight guns, in thirty minutes, Aug. 19, 1812.  
**Madra**—United States, forty-four guns, captures the Macedonian, forty guns, Oct. 20, 1812.  
**Brazil**—Constitution captures the Java, Dec. 20, 1812.  
**Lake Erie**—Perry, with fifty-four guns, defeats English fleet with sixty-three guns, Sept. 10, 1813.  
**Lake Champlain**—McDonough, with eighty-six guns, defeats English fleet with ninety-six guns, Sept. 11, 1814.  
**Manila**—Commodore Dewey, with six vessels, defeats the Spanish under Admiral Montojo with eighteen vessels, sinking eleven of the Spaniards and withdrawing unscathed, May 1, 1898.  
**Santiago**—Commodore Schley, with six vessels, totally destroyed the entire Spanish fleet under Cervera. But one American was killed, while the Spanish lost 900 killed and 1,100 taken prisoner.

Passing by the battle of Salamis, which was in reality nothing more than a land battle on galleys, the success of the victor depending largely upon favorable winds and formidable crews, the next most important naval battle of the world was that fought in the bay of Lepanto in 1671 between the papal, Venetian and Spanish fleets and that of Selim, Sultan of Constantinople. The Christian fleet consisted of 250 ships and more than 50,000 men under the command of Don John of Austria. The Turkish fleet, which was under command of Pasha Ali, was much larger, but the Christians had the advantage in equipment, making use of helmets, coats of mail and firearms, while many of the Turks had no better defensive garb than leather shields and no more formidable weapons than arrows.

Three times the Spaniards boarded the Turk and fell back. A fourth time, with a re-enforcement of 200 men, they rushed to the assault and carried everything before them. An indiscriminate slaughter followed. The crescent was quickly replaced by the cross and the bloody head of Ali planted on a pole was raised on the masthead of Don John's flagship. The

Christians cried "Victoria, victoria," and rushed upon the enemy, but did not win the battle until the Christian galley slaves revolted, broke their chains and turned on their masters. Only thirty of the Turkish galleys escaped to Constantinople, 130 were captured and the rest destroyed. More than 10,000 Turks were taken and 25,000 slain, and the Christians lost 10,000 men.

The most brilliant naval victory of the American revolution was won by John Paul Jones, when he captured with the old hulk, Bon Homme Richard, the British frigate Serapis and a smaller vessel, the Countess of Scarborough, conveying a fleet of merchantmen. The enemy approached within pistol-shot distance and Jones' sharpshooters kept the Englishman's decks clear. At the outset Jones suffered considerably from the bursting of three of his guns, but he quickly rallied and lashed his sinking vessel to the Britisher, which soon surrendered. The loss of the Richard was thirty killed and wounded, and that on the Serapis was nearly as great. The Richard was left to her fate and next day sank with her wounded on board.

The battle of Trafalgar, Nelson's last fight, took place off Cadiz, between the allied French and Spanish fleets of thirty-three sailing vessels and twenty-seven English vessels. The British fleet led down upon the enemy under full sail, by Nelson with fourteen vessels in the front and Admiral Collingwood in the rear with thirteen vessels. Nelson's object was to break the enemy's fleet into sections inferior to his own and then join battle at close quarters. It was in this battle that Nelson raised the pennant, "England expects every man to do his duty." The English were successful, but Nelson was shot, and England lost her greatest admiral. After the dying Nelson was told that fifteen of the enemy's ships had been taken, he said: "That is well, but I bargained for twenty."

The battle of Lake Erie, in which Perry, a mere youth, with fifty-four guns and 600 men, defeated the British squadron with sixty-three guns and nearly 2,800 men, was an epoch-maker in American history, as it gave the Americans control of the great lakes. Captain Barclay, a veteran who fought under Nelson at Trafalgar, commanded the British fleet. During the fight, which lasted three hours, Perry forsook the Lawrence, his flagship, and in a little boat which was made the target of scores of rifles he was rowed over to the Niagara. The Niagara suddenly swerved, broke the enemy's line, raking the enemy's ships at pistol distance. In a few moments all the American vessels were close on their opponents and the English pulled down their flags in less than half an hour.

**First Ironclad Engagement.**  
The first general engagement between ironclads took place in 1862 between the Italians and Austrians off the island of Lissa. In this engagement the Austrian admiral in the flagship Ferdinand Max sank the Italian flagship, but as the Italian sank half a battalion of marines fired on the Austrian and killed eighty of her men. The fight between the Kearsarge and the Alabama, in which the latter was sunk after a short contest, is familiar to readers of American history, but inasmuch as both were unprotected by armor the event can scarcely be accounted as a world-noted engagement. The sinking of the Albatross off the coast of North Carolina is also a landmark in American history, but it was to the daring of one man, Lieut. Cushing, who placed a torpedo under the Confederate ram, that the victory was placed on the Union scroll.

The history of Europe and South America, particularly of Chili and Peru, abounds in instances of daring at sea, the destruction of ships and loss of men, but it was not until Commodore Dewey opened fire on the Spanish fleet in Manila bay that the full strong voice of the modern man-of-war was heard.

As for the strength of the various nations of the world, figures indicate little. Suffice it to say that England and France are strong leaders, with Russia, Germany, Italy and the United States all within hailing distance.

THE LATE EX-MAYOR SUTRO MADE MANY GIFTS TO THE PACIFIC METROPOLIS.

San Francisco lost one of her best known and most philanthropic citizens in the death of ex-Mayor Adolph Sutro. He was a man of many peculiar characteristics, but withal a most generous giver, and his name will long be held in remembrance by the people of San Francisco for the many splendid gifts he made to the city.

Adolph Sutro was born sixty-eight years ago in Prussia of Jewish parents. He came to the United States in 1850, when the gold fever was at its height, and was lured with countless others to the shores of the Pacific. It was not long after that the great Comstock lode began to turn out its millions and attracted the attention of the world. The mines soon got down so deep that there appeared to be no way to drain them, and the heat was so intense from lack of ventilation that the miners could not work. Sutro, who had studied engineering, conceived the scheme of constructing an enormous tunnel under the lode which should connect the shafts and relieve them. He got capitalists to back him up, and in October, 1878, a tunnel twelve feet wide, ten feet high, and with its branches over five miles long had been completed. It proved a success. The mining companies, however, refused to share revenues with the tunnel company. Sutro therefore closed the tunnel and brought everybody to terms, as the lode could not be worked without using it.

When the tunnel was in full operation Sutro unloaded it at a handsome profit, wandered about Europe for a time, picked up a wondrous library and



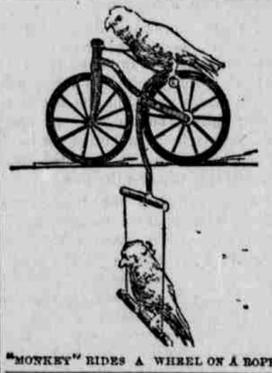
EX-MAYOR ADOLPH SUTRO.

much statutory and drifted back to San Francisco to buy so much of the "outside lands" of the city that he owned one-twelfth of the entire acreage of the city proper.

In 1894 Sutro ran for Mayor of San Francisco and was elected, in spite of the fact that the newspapers and all the big corporations and politicians were against him. After his term as Mayor his mind began to fail and for months had been a blank. The last years of his life had been embittered by family quarrels, and it is possible that the settlement of his estate, which amounts to about \$5,000,000, will cause a bitter fight in the courts.

AN ACROBATIC MONKEY.

Cockatoo that Rides a Bicycle and Does All Sorts of Wonderful Things. Monkey is the prize cockatoo is Mme. Belloni's troupe of trained birds. He rides a bicycle on a wire, turns somersaults and does very wonderful things. "I train a new bird by allowing him to sit by and watch the others perform," says Mme. Belloni. "Monkey is my favorite."



"MONKEY" RIDES A WHEEL ON A ROPE.

vorite and very jealous of his fellow-actors. If I notice them he sulks for an hour."

IT LOOKS AWKWARD.

This is the position assumed when shooting by Captain Gibbs, R. N., the champion long-distance shot of England.



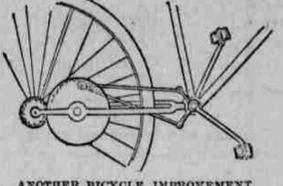
READY TO SHOT.

The Judge—And for the levity with which you have conducted yourself during your trial I shall give you an additional fine of \$10. How does that suit you? The Villain—That is what I would call extra fine.—Indianapolis Journal.

ting a woman from wearing a Mother Hubbard except on days when the thermometer is above 95.



**To Save Power.**  
Wheelmen generally will be interested in a recently patented and decidedly novel device designed to change the present principle of applying power to the bicycle. The rider simply moves his legs up and down, almost vertically. He thus saves all that power that is now lost in making the complete revolution on the pedal. The device consists of two spur wheels, the one on the rear hub being two inches in diameter. The



ANOTHER BICYCLE IMPROVEMENT.

other, which is attached to the rear frame, is six inches in diameter. Two arms, connecting with cranks, move up and down as the power is applied, and the wheel moves off, it is claimed, with even less friction than does the chainless wheel and with great saving in the amount of power. The two spur wheels are neatly covered and the general appearance of the wheel is not altered.

**The December Race.**  
It is said that the six-day bicycle race to be run at Madison Square Garden in December will be either twenty or twenty-two hours a day, with two to four hours of compulsory rest for the contestants. It is predicted that this will be a harder contest than the straightaway, 142-hour grind, owing to the fact that riders will feel themselves compelled to remain upon their wheels all of the riding hours.

**Cooper Saves His Money.**  
When Tom Cooper retires from the racing field it will be as a rich man. He has carefully hoarded his money, and has invested it in telephone stock that has trebled in value and which is now paying a handsome dividend. Eddie Bald is laying by a snug sum, and although this is not invested as lucratively and advantageously as the money of Cooper, Bald will not quit the game poor.

**He Begins Well.**  
This is Nat Wilson, the 7-year-old son of Prof. N. E. Wilson, agricultural



A YOUTHFUL CYCLER.

chemist of the Nevada State University. The boy recently rode a bicycle from Reno to San Francisco and return—550 miles—in ten days.

**Powell Has Retired.**  
Irving A. Powell, the intercollegiate champion bicyclist, has retired and New York loses its best amateur representative of the past two seasons. Powell was worth in his own name \$400,000 and raced purely and solely for the fun of it. He tired of the sport and is now shining in the society of a prominent resort.

**Relief for Tired Wheelmen.**  
Ardent lady cyclists may be pleased to know that when they return stiff and tired from a long country ride they will derive great benefit and relief from taking a warm bath into which has been poured a good teaspoonful of white vinegar. Ammonia used liberally in the same way also has excellent results.

**Star of the Season.**  
McDuffie is the star bicyclist of the year. He has defeated good, bad and indifferent riders with the same ease. He defeated Michael, breaking records while doing so. He defeated Hoyt and broke records as well, and when he met Major Taylor the same story was told.

**Cyclists in Chicago.**  
It is estimated that there were at least 300,000 cyclists in Chicago last year, and that this year the number will reach 500,000.

**Poultry Schools in France.**  
England imports eggs and poultry to the value of \$23,000,000, while France exports \$70,000,000 of the same. France has a number of poultry schools, where pupils are regularly trained in rearing fowls, managing incubators, curing diseases, etc. 30,000 chickens being hatched each season at the Gambais school. The pupils pay for their instruction, and work from 6 a. m. to 8 p. m., three of the hours being devoted to study. Scholarships are founded for the benefit of those unable to afford the tuition fee.

The highest prized American coin is the Lord Baltimore farthing, a tiny piece, for which as high as \$360 has been paid.