

# THE WRECKING OF THE SPANISH SQUADRON.

## A Few Pointed Lessons.—Views of a Naval Expert Upon the Condition of the Spanish Ships, with Some Pertinent Deductions About Naval Warfare.

The gun is still the supreme sea weapon. It is true that greatest havoc in the Spanish ships driven ashore off Santiago was caused by fire, but this conflagration was a secondary and not a primary cause.

Of the four ships examined and reported upon by the Naval Board three were wrecked by the explosion of their magazines. This was also a secondary, not a determining cause. No, the main weapon was not the ram nor the torpedo, but the gun.

It is impossible yet to state what effect the American projectiles may have had upon the submerged parts of the hulls, but the above water structure yields convincing evidence of gun power. The total number of shots fired in the action has not been made public, but we have reports of two ships, and if these be accepted as a ratio for the others, the ammunition rained upon the Spaniards must have been enormous. Captain Evans, of the Iowa, states that the following is an approximation of the projectiles fired from his ship: Thirty-one 12-inch semi-armored piercing shells, with full charges; 35 8-inch common shells, with full charges; 251 4-inch common shells, 1,956 6-pounder cartridges, common shells, and 100 1-pounder cartridges, common shells. Captain Cook, of the Brooklyn, reports that he fired 100 rounds of 8-inch shells, 473 5-inch, 1,200 6-pounder, and 200 1-pounder ammunition. If the other battleships made the same average as the Iowa we will get, after allowing for the respective differences in caliber, a total of about 150,000 pounds of metal, or ninety tons, discharged against the enemy.

Assuming that about 6,500 shots in all were fired, and this approximation is fairly close, we find, excluding the fires from the 6 and 1 pounders, that 1,500 projectiles of the larger calibers were discharged by the Oregon, Brooklyn, Iowa, Indiana and Texas. It will be interesting to note in this connection the number of direct hits made by these shells. This is taken from the report made by the Examining Board, convened by Admiral Sampson immediately after the battle:

"Four-inch shells—Fired only by the Iowa—The Infanta Maria Teresa, 1; the Almirante Oquendo, 5; the Vizcaya, 2.

"Five-inch shells—Fired only by the Brooklyn—The Infanta Maria Teresa, 5; the Vizcaya, 6; the Almirante Oquendo, 5 (one of which exploded a torpedo); the Cristobal Colon, 4.

"Eight-inch shells—Fired by the Brooklyn, the Iowa, the Oregon and the Indiana—The Maria Teresa, 3; the Almirante Oquendo, 3; the Vizcaya, 4. As the Indiana did not follow the chase she probably had nothing to do with the hits on the Vizcaya.

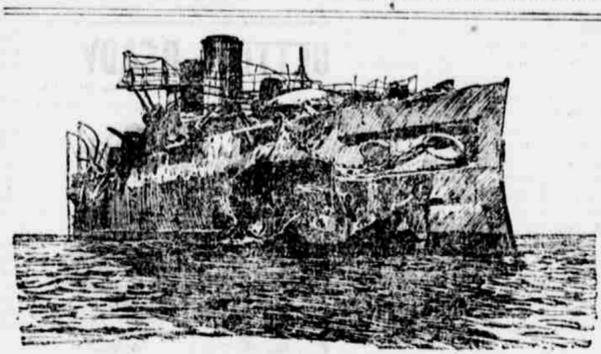
"Twelve or thirteen inch shells—Only two on the Teresa must be credited to the battleships Oregon, Indiana, Texas and Iowa, although it is quite certain that the Texas fired one.

"All the Spanish ships were riddled by the rapid fire of the 1 and 6 pounders carried by all the American ships."

This total of forty hits applied to the projectiles fired gives about three per cent of successful shots. To the layman this may seem a small ratio, but it is very good indeed when the smoke, distance and the difficulties of a running fight are considered. The engagement started at a range of six thousand yards—that is, at a distance of about three miles. Following out an approved sea maxim and the special instructions formulated by Rear Admiral Sampson, the ships closed gradually, so that both torpedo boats and two of the armored cruisers were destroyed when within 2,500 yards. At one time the Vizcaya and the Brooklyn were engaged in close order for modern fighting, the distance estimated being just over 1,000 yards.

The Spanish statement of their gun fire has not been given specifically. All we know is that they opposed a total of 146 guns to the 225 mounted on board the American ships—that is, if the batteries of the Gloucester and the Vixen be included. Our marked superiority was in the heavy guns, as we opposed fourteen to their six, but

it must be kept in mind that the actual work of our 12 and 13 inch pieces was not controlling. The main results were achieved by the 8-inch and lower calibers, and by the rapid-fire pieces. Thirty-two of the 8-inch were mounted, and it is surprising with what effectiveness they were handled. This brought to the front again the old argument as to calibers, and gives a vantage ground to those who claim that the most useful larger guns are those which can be worked by hand power and are independent of the mechanisms required in all calibers exceeding the 8-inch. In the medium-caliber guns the Spaniards possessed an undoubted superiority in the rapid-fire types, as they carried 54 guns from the 6-inch caliber down to and including 12-pounders, while we mounted only 18 guns of this character. Omitting the machine guns, Gatlings and the like, we carried of the smaller calibers 136, the Spaniards 76; and this preponderance was most important, notably in the case of the 6-pounders. It must be remembered of course that all these guns could not be brought to bear, the Spaniards having to depend, outside of their turret guns, mainly on their port batteries, and the American ships being restricted in the beginning of the chase and the closing in to their bow fire. Hence the assumptions on the weight of metal thrown are based, not upon what the



THE VIZCAYA.

batteries ought theoretically to do, but upon what was actually done, and upon the ratio established by this performance.

In the special report made by the board it is stated that the Almirante Oquendo suffered more than any other of the ships except the torpedo boats. Her upper works were masses of distorted steel and her decks were littered with killed and wounded. She was hit on the port side four times by 8-inch shells, three times by 4-inch shells, twice by 6-inch guns and 42 times by 6-pounders. As will be seen in one of the illustrations, an 8-inch shell entered the forward turret at the gun embrasure. This exploded and killed every man in the turret, most of them instantly, for the officer standing in the firing hood and one man at a lever were found in those positions when the ship was examined by the board. The Vizcaya was swept by a storm of projectiles from the rapid-fire guns. She was hit by the larger projectiles fourteen times and by the 6-pounders eleven times. The 8-inch guns of the Brooklyn and the Oregon and the 5-inch guns of the Brooklyn completely wrecked her structure above the armor belt. The 6-inch shells perforated her, and supplementing all this was the destructive work of the Iowa's 4-inch. In the Infanta Maria Teresa, the only vessel hit by 12 or 13-inch projectiles, two of these went through her, one probably fired by the Texas and one from some other of the battleships. Each claims the shot. An 8-inch shell, credited to the Brooklyn, entered the side just forward of the port beam, burst and disabled four crews manning the guns of that deck. This is the shot, Admiral Cervera says, which set fire to the ship, and, as her fire mains were cut, forced her, from inability to extinguish the flames, to surrender and seek the shore.

Of all the ships the Cristobal Colon

came out best. She was struck only six times by larger projectiles, and surrendered when the Oregon's 13-inch shells spanned her within a destructive range. One 8-inch shell, sponsor unknown, landed in the Colon's ward-room, and, exploding, wrecked the compartment, and a 6-inch projectile, nicely placed, smashed her bow. None of these injuries was sufficient to put her out of action, and the press reports state that they were not so serious as those received by the Brooklyn. On board the Vizcaya a projectile struck a loaded torpedo, which exploded, killing twenty men and setting fire to the forward part of the ship. The whole fight lasted a little over three hours and a half, if the reports are accepted that it began about thirty-five minutes past 9 a. m., and was concluded with the surrender of the Colon at twenty minutes past 1 p. m.

Here is what the Spanish officers say of the battle:

"The Oquendo received a heavy fire from the combined fleet while in the entrance, and a 6-inch shell, either from the Texas or the Oregon, struck the Colon in the bow. The Vizcaya was not badly hit until the Oquendo and Maria Teresa had been driven ashore. The Oquendo tried to give some protection to the torpedo boats, but was simply riddled with 6-pounder shells. She was really in worse stress than the Maria Teresa until a shell from the Texas hit the latter's flood pipes and a shell from the Brooklyn cleaned out her gun deck. The men on the Oquendo refused to work the guns, and there was nothing to do but run her ashore. The decks were covered with wounded and dead men, and the ship was on fire." Captain Eulate says: "The Brooklyn's fire on our broadside was frightful, and the men could not stay at their guns."

This exhibit of the gun power has not taken into specific consideration the enormous damage done to material and personnel by the rapid-fire guns, nor has it included the effect of shells bursting over or close aboard the ves-

sels. All the captured Spanish officers bear testimony to the part played in the battle by the lighter pieces. Guns crews were killed or driven from their weapons; the decks became shambles. The morale of the enlisted men was shattered. No protection above the armored belt sufficed to resist the searching qualities of these smaller pieces. Long before the vessels yielded the crews abandoned the batteries and sought refuge wherever the thickness of metal promised shelter. Then came the fire.

The damage done by the ignition of the woodwork of the ship was extraordinary. At first it was fought, but the bursting projectiles of the larger calibers sprinkled the decks with particles which were like igniting fuses. The flames spread rapidly, first about the wooden decks and the wood-sheathed and bulkheaded quarters below, and then attacking the bridges, boats and superstructures. The free ammunition about the batteries began to explode; the abandoned guns commenced to discharge their unprotected cartridges. At last, when the ships struck the coral and the supports of funnels and masts were carried away or strained, these vertical masses began to sway and topple, and as the vessels turned on their bligues gave way entirely and came down with a shock that rent everything in their neighborhood. Finally the conflagration reached the magazines, and the flame clouds hovering over the twisted and distorted frames and beams were slitted by great masses of fire and by bursting projectiles shooting skyward. In this roaring furnace the steel and iron became malleable, and as the ships rolled and pounded on the beach the forge on which they were bent and mangled was provided for them.

It is no wonder, then, that the board reported the improbability of saving all but the Maria Teresa, and possibly the Colon, for the Oquendo and Vizcaya, torn by projectiles and given over to the flames of their bursting charges, were gutted or shattered in such shape that their days of usefulness were over.

Briefly summarizing, the conclusions reached by the Board of Examination were as follows:

The use of wood in the construction and equipment of warships should be reduced to the utmost degree possible. Loaded torpedoes above the water line are a serious menace to the vessels carrying them, and they should not be so carried by vessels other than torpedo boats. The value of rapid-fire batteries cannot be too highly estimated. All water and steam pipes should be laid beneath the protective deck and below the water line and fitted with risers at such points as may be considered necessary. The Infanta Maria Teresa, Almirante Oquendo and Vizcaya were destroyed by conflagration caused by the explosion of shells in the interior, which set fire to the woodwork. The upper deck and

all other woodwork on these ships was entirely consumed, except at the extremities, thus showing the importance of fireproofing all woodwork on board ships. Many of the guns on board the burned ships were found loaded at the time of the board's visit, indicating the haste with which the people were driven from their guns. The fire of the gun crews of the Vizcaya was very materially lessened and almost silenced because the gunners were not able to serve their guns under the severe fire poured upon them by the American ships.

Here are the lessons of the fight. They are commended to the consideration of those who, when the next inevitable sea war comes, feel that our bluejackets ought to be given such ships and such possible security as will enable them to get into action with a fair and an equal fighting chance.

### CHRISTMAS WORK NOW.

Even the Suggestion of It Makes Us Feel Cooler.

It is during the hot summer days that time hangs heavily upon the industrious woman's hands, also the inclination for serious work is lacking. Then, if she is wise, will begin the Christmas preparation, a list of those she wishes to remember having been previously made. By a careful study of this list scores of pretty things may suggest themselves, trifles that may cost but little more than care and time, but whose value is increased on that account. The majority of women are like myself in preferring a simple little gift made by the careful fingers of some friend. The white linen work is especially fascinating with its pretty hemstitching and artistic designs. Tray cloths, tea cloths, sachets, toilet sets, table mats, sofa pillows and bed sets are but a few of the articles which may be suggested for summer work. The woman who loves her home in the city or country will find endless ways of beautifying it, and needlework will be the main feature of it. The woman whose family cares keep her in the city home during the summer months can make herself and family very comfortable if she so desires. She can take up the carpets and leave bare floors, which can be wiped up almost every day with water nearly cold in temperature. She can take down the heavy portieres and replace them with printed shades, awnings, screens, linen-covered cottons or bur-lap in some of the pretty soft couches and hammocks, if you can possibly hang them, will add to your comfort and make you glad that you can sit about in cool, loose gowns and avoid the many inconveniences of summer hotel life. Right out in Germantown is a little family which has made the discovery that home is the most beautiful spot on earth in summer. The suite has been treated much as I suggested, and upon the roof is the dearest little corner, with hammock and lounging chairs. The evenings spent there are ideal, and the mistress of the place gives a sigh of satisfaction every time she thinks of previous summers spent at a Bar Harbor hotel.

LEMONS IN HOT WEATHER.

They Are of Great Medicinal Value During the Enervating Days of Summer.

We know in a dull sort of way that lemons are useful, and if we didn't might easily find this out by looking over the papers. But just how valuable they are few of us realize. They are of great medicinal value, and are better than patent medicines and nostrums put up in bottles and boxes for the benefit (?) of the human family. A teaspoonful of lemon juice in a small cup of black coffee will drive away an attack of bilious headache, but it is better to use them freely and to avoid the attack of headache. A slice of lemon rubbed on the temples and back of the neck is also good for headache. These facts help in beautifying one, for one can't be beautiful and ailing at the same time. The days are past when the delicate woman with "nerves" was the heroine of all the novels, and the "clinging vine" supposed to be admired by all men. Lemons taken externally or rather used, will add in beautifying any one. There is nothing more valuable for the toilet table than a solution of lemon juice: a little rubbed on the hands, face and neck at night will not only whiten, but soften the skin. A paste made of magnesia and lemon juice applied to the face and hands upon lying down for fifteen minutes' rest will bleach the skin beautifully. For discolored or stained fingernails a teaspoonful of lemon juice in a cup of warm soft water is invaluable; this is one of the best manure acids. It will loosen the cuticle from the fingernails as well as remove discolorations. Lemon juice in water is an excellent tooth wash. This is about the only thing that will remove tartar. It will also sweeten the breath.—Louisville Courier-Journal.

Proverb Proved.

The Parisian editor was greatly exasperated. He gave expression to numerous fervid and more or less lurid ejaculations. "What's the matter?" inquired his assistant. "I was just getting ready to write about the three duels I fought to-day when I ran the point of my pen into my thumb. There is no use in trying to deny it. The pen is mightier than the sword."

Canada—Nothing Here.

About the most galling thing about Canada (to Canadians) is its name. It is derived from the Indian word *Kan-adoh*. That means "nothing here." Some people believe that Canada is well named. Nor will there ever be anything in Canada until Uncle Sam takes John Bull by the nape of the neck and looses part of the trousers and drops him into the Atlantic.

### OF GENERAL INTEREST

INFORMATION FROM ALL PARTS OF THE WORLD.

Events of More Than Passing Interest Which Have Transpired Since the War Ended—Peace Progress and Movements of Army, Navy, and Departments.

Wednesday, August 24.

Camp Thomas is being abandoned for more healthful locations.

At Manila, everything is quieting down. The insurgents are causing no trouble, and business is booming.

The cable at Manila is now in operation. General Merritt says word that the health of his men is excellent.

Miss Helen Gould has contributed \$25,000 to purchase food and delicacies for the sick and wounded soldiers at Camp Wikoff, at Montauk Point, L. I.

At Angouleme, France, a captain of artillery murdered his paramour and orderly, and then blew out his own brains. The crime grew out of a quarrel.

Eight, and possibly ten, men were killed by a cave-in at the Carnegie tunnel on the Chartiers division of the Panhandle road near Pittsburgh, Pa. Five more were injured, two fatally.

Assistant Secretary of War Meiklejohn has forwarded an official list of casualties sustained by the First Nebraska in the engagements before Manila. It is as follows: Killed—William P. Lears, private, E. Severely wounded—John E. Duncan and Lawrence P. Connor, privates, E. George Hanson and Harry A. Wickham, A. Claud F. Head, G. Slightly wounded—Joseph S. Oviatt and John P. McCauley, A. Charles E. Peltzer, E. George Englehorn, K. William J. Evans, C. died in hospital from disease.

Thursday, August 25.

Spanish is to be taught in Chicago schools.

The condition of Rear Admiral Schley is greatly improved.

California republicans believe in holding the Philippines.

Senator Davis says the peace commissioners have a hard time ahead of them.

The queen regent of Spain has issued an order for the convening of the cortes September 5.

The ordinance bureau of the war department contemplates using the captured Spanish arms.

The president has promised to visit the trans-Mississippi exposition some time late in September or early in October.

Three hundred miners were drowned by the flooding of the Kasimir coal mine at Nienze, near Schowitz, Silesia, Austria.

L. R. Graves, a prominent citizen of Deadwood, took potassium in mistake for water and died almost immediately after.

It is rumored the insurgents refuse to recognize the terms of the protocol, and are still fighting the Spaniards. The rumor is not confirmed.

Hayt refused to permit the United States to establish a weather bureau there fearing it meant an initiative in territorial acquisition of the island.

Aguinado says if Americans or English are to control the islands the Filipinos will lay down their arms. If Spain is to control the Philippines, they dare not do so, and will continue in rebellion.

Under General Wood's governorship Santiago is fast approaching civilization. He has been instrumental in arranging for the public schools to open by September 15, at which time places for 4,000 children will be ready.

Friday, August 26.

Texas has a yellow fever scare, and Galveston is under suspicion.

The Comal sailed from Tampa for Havana with 1,000,000 rations for starving Cubans.

Sickness among American troops in Porto Rico is on the increase and another Santiago is feared.

A French fishing smack was run into by a large steamer on the grand banks and sixteen seamen were drowned.

The first pension ever granted to a Chinese subject was yesterday issued to Ah Chum, widow of Pascal Martin, a sailor in the United States navy.

Charles Johnson hung himself yesterday at Iron River, Wis., with a piece of barbed wire. His head was nearly severed from the body.

General Miles is expected to arrive in Washington soon, and trouble between him and Secretary Alger is expected over suppression of orders.

An order was issued yesterday by the war department to have the large balloon, with generator and compressors, which was used in the operations before Santiago, sent to Omaha, where ascensions will be made daily from the exposition grounds.

Saturday, August 27.

General Shafter has left Santiago for Montauk Point.

British steamers from Australia are carrying fresh beef to Manila.

Rear Admiral Schley arrived in Washington and was accorded an ovation.

An epidemic of typhoid fever has broken out among the First Illinois cavalry now at Ft. Sheridan.

At Fremont E. E. Boggs' team ran away and one of the horses ran its head against a telephone pole and mashed its skull. It was killed.

The navy department has ordered the St. Paul and St. Louis restored to their condition as liners and returned to the American line from which they were chartered.

Secretary Alger visited Camp Wikoff and took steps to give all possible relief to the sick and wounded.

John Carrigan, a Buffalo, N. Y., cartman, was killed by his son Frank for having abused his wife and broken her arm.

Russia and England are massing their warships in the orient and troublous times are ahead. The war dogs seem to be tugging at their chains.

John Anderson, who was to have been hanged yesterday for the murders committed on the schooner Olive Pecker some time ago, has been reprieved by the governor of Virginia until the fourth Friday in October.

The movement of the men from Camp Thomas, Chickamauga Park, is proceeding, although not as speedily as General Brockenridge anticipated. Little three-year-old George Lerri at Oakland, Cal., fell in front of a train and escaped injury, though unconscious for several moments. He happened to fall into an excavation made by section men, and the entire train passed over him.

Trooper Hudson of the Utah volunteers fired off his revolver in the streets of Cavite and precipitated a fight between Americans and insurgents. Trooper Hudson and Corporal Anderson were killed, and several others were wounded. Four natives were killed and several wounded.

Sunday, August 28.

The employees of the Elgin watch company have struck for higher wages.

General Wheeler reports the general health of the soldiers at Montauk Point improving.

Marion Mills, the godless pacing mare, stumbled and fell on the track at Cortland, N. Y., and died of concussion of the brain.

Admiral Schley visited the navy department yesterday, and the women clerks, old and young, showered kisses on the hero of Santiago.

J. W. McDonald has been appointed temporary receiver for the Lincoln, Neb., Capital National bank, vice Receiver K. K. Hayden, who recently died.

The Philippine islands committee in Europe has addressed a letter to President McKinley requesting him to drive out the Friars as a "necessary antecedent to moral sanitation."

The condition of the Santiago Spaniards is pitiful in the extreme. They are dying by scores. It is estimated that 30 per cent of the soldiers will die while enroute to Spain.

Okey P. Eddy, a member of the Eighth Ohio volunteers, died of starvation while on a transport coming home from Cuba. His mother and sister have gone insane over his fate.

A railroad train on the Boston & Maine road struck a wagon at Whittier's crossing near Ware, Mass., and George, George Jr., Sadie and Jessie Whitting and a boy were killed. Three others were seriously injured.

The Red Cross hospital ship Solace with sick and wounded soldiers from Santiago was due at Boston last Tuesday, but has not yet arrived. It is feared she encountered a storm or has been destroyed by accident. She had on board sailors from Sampson's fleet.

Monday, August 29.

The naval examining board has recommended Assistant Naval Constructor Hobson for promotion to naval constructor.

Mrs. Rev. George Jeffries and child of Philadelphia, died in Shippensburg as a result of eating toaststools instead of mushrooms.

Edward Hedges, a member of Company L. (Tecumseh) Second Nebraska, died of typhoid fever yesterday in regimental hospital.

Two privates of the Sixty-Ninth New York were killed and several others were injured in a wreck at Birmingham, Ala. The troops were being transferred from Fernandina, Fla., to Huntsville, Ala.

Private Harry Duval, a rough rider, was absent from Camp Wikoff without leave. He feared to face a court martial and shot himself dead. He was in New York. He enlisted from Arizona. He had been absent thirteen days.

A bitter feeling is springing up in Madrid against France, a remarkable disposition being manifested to blame her for inducing the weak and incompetent Sagasta government to consent to a peace dishonorable and disadvantageous to Spain.

The czar of Russia has addressed a note to the powers of Europe favoring a conference as a means of securing real and lasting peace. The note says the keeping of nations on war footing is crushing the life out of the countries, and is a menace to the welfare of the people. It has created a sensation.

Tuesday, August 30.

Malleton, king of Samoa, died of typhoid fever.

Crop failures in Russia are causing much distress.

The hospital ship Solace arrived at Boston yesterday.

Culver's Nebraska cavalry has been ordered mustered out.

General Don Carlos Buell, aged 80, is dying at his home at Paradise, Ky.

Lieutenant Hobson arrived at Santiago yesterday. He will superintend the raising of the Cristobal Colon and Maria Teresa.

Ambassador Hay has gone to Osborne House, Isle of Wight, to bid the queen goodbye, previous to sailing for home to assume duties of secretary of state.

At 2:15 o'clock, this, Tuesday morning, a fire broke out in Phillips and Butterfield's retail hardware store at Nashville, Tenn., which threatens to cause a great loss.

H. T. Higgins, cashier of the treasurer's office of the Rock Island railroad at Chicago, was taking a vapor bath when the machine exploded, scalding him to death.

John Meek of Fremont, O., has received a check for \$100 from Gonzalo de Quesada, charge d'affaires of the Republic of Cuba, with a letter explaining that the amount was left in his hands by a Cuban gentleman named Cambresis to be given to the wife, parents, or brother or sister of the first American born sailor who should die in the war to free Cuba. Mr. Meek's son, George H. Meek, was a first class fireman on the torpedo boat Winslow and was the first man killed in the engagement at Cardenas.

The war department has asked for an investigation and the president will comply.

Private William H. Benson, of River, ton, Neb., a member of the Third Nebraska, died in camp at Jacksonville. This is the first death in the Third.

Ex-Governor Claude Matthews of Indiana, died at the McHenry home stead at Wingate, Ind., yesterday. He failed to rally from a paralytic stroke suffered some days ago.

At a barbecue given at Morse Hill, Mo., over thirty people were poisoned. But for prompt medical assistance many would have died. It is believed some one placed Paris green in the meat prior to the cooking.



TAKING AIM—RAPID-FIRE GUN.