

# TREMENDOUS POWER OF FLEET NOW OFF MEXICO

## Impenetrable Crust of Steel Blocks Mexican Ports.

### Severe Trial of Big Guns Before They Are Mounted.

Continued from first page.

not more than one-eighth the length of a battleship, was riddled with shots fired at ranges varying from 14,000 to 9,000 yards. There are 1,700 yards to a mile, so that the range at which the battleships practised was from 8.7 miles to about 5 miles. It was estimated that 90 per cent of hits were made. Of course, when it comes to a battle it is only the hits that count. But there is practically no solace in this remark.

"This means," says one writer, referring to 90 per cent of hits, "that four battleships lying off the Battery could select a building of 60 feet frontage in 135th st. and fairly riddle it with holes in twenty minutes—or the time necessary to enable Huerta to make up his mind a new way twenty times. Or, to put it another way, a division of four battleships, selecting the Singer Building as their target, could begin firing off Fort Tompkins, and before they reached the Narrows could reduce it to powder."

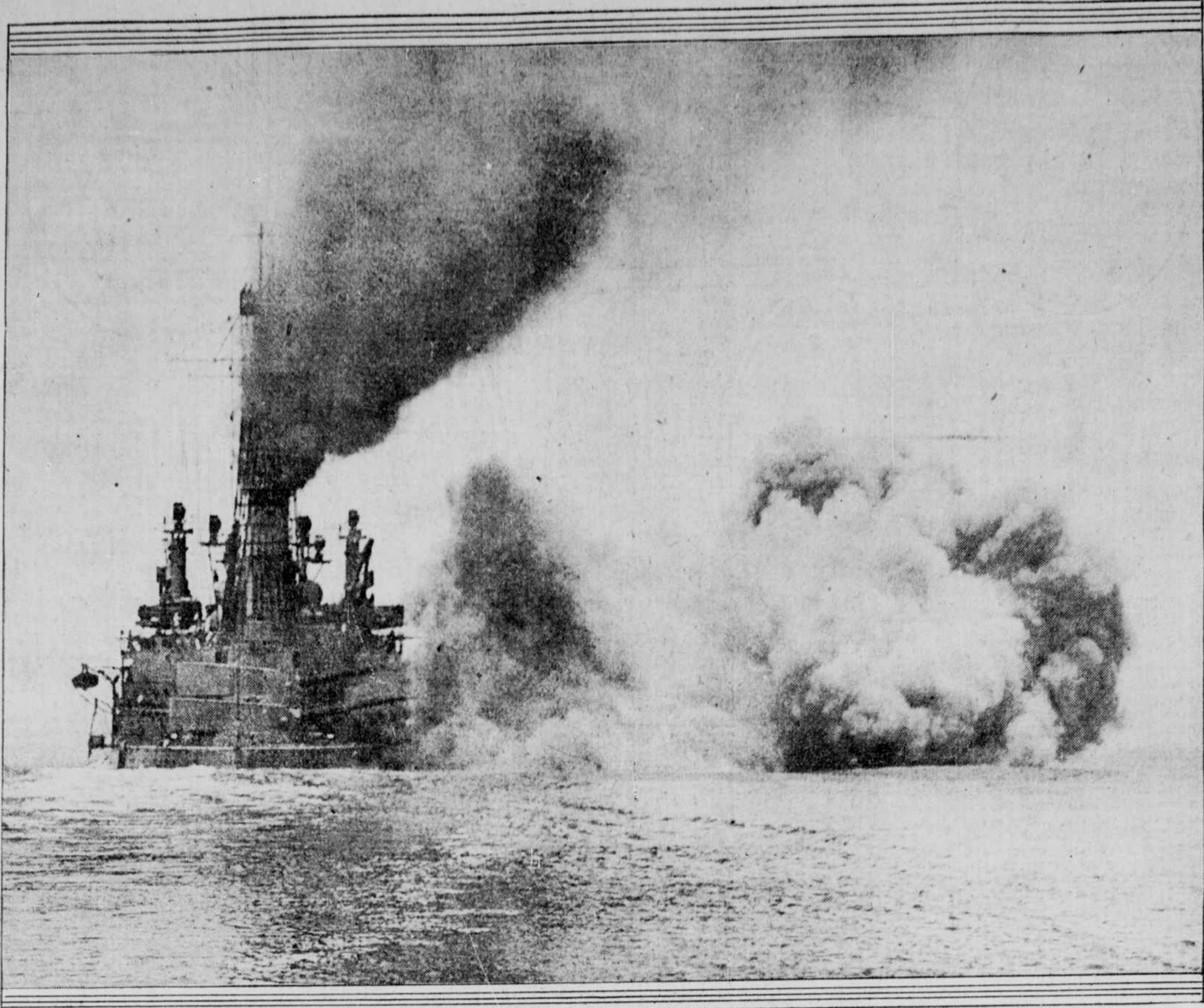
It was a marvellous demonstration of the accuracy of modern gunnery, so marvellous that the bald assertion will probably tax the credulity of many people who will have to attend a battle and see for themselves before they will realize the terrible efficiency of the American navy.

#### GUNNERS MUST DETERMINE THEIR OWN RANGE.

Also, it should be remembered, the target, towed by a battleship, was in constant motion on an unknown and varying course and at an unknown and varying speed, while the battleships, from which the firing was done, were moving at high speed and were compelled to determine the range for themselves and without any knowledge of the distance save that after steaming for thirty-two minutes away from the targets they were to turn and steam slightly toward them and to fire when even the word of command was given.

"The towing vessels in each instance," continues this observer, "towed the targets with a hawser only 400 yards long. And there was no anxiety regarding the safety of the towing vessel. The first shot from the Georgia fell perhaps 100 yards short, but the second brought a cheer. It plunged directly through the target, leaving a great rent in the canvas, and this at 14,000 yards. One after another they came, never wide of the mark, many of them through it.

"Had Cervera's fleet faced a fire even approximating in deadly accuracy that of the fourth division of the Atlantic fleet at target practice, the battle of Santiago would not have lasted half as long. In twenty minutes the screens were reduced to shreds. In one, nine great holes could be counted with the glass, while flying splinters told of many shots that hit the rafts below the screens, shots that would have wrought terrible havoc to any vessel they had struck there, just at the water line."



SOUTH CAROLINA FIRING A BROADSIDE

© Clarke & Moller

where they would do the most damage in time of war.

The officers do not discuss the records for publication, but there are rumors that some very gratifying ones were made. It is reported, for instance, that a target about 30 by 60 feet was destroyed by one battleship at a distance of more than six land miles. A target at that distance is a mere speck on the horizon.

In target practice all the rules aim at the reproduction of the conditions of actual battle, and every effort is put forth to accomplish this end. Some time before the practice is to be held each officer whose post requires an advance knowledge of the work to be done receives a book of rules for that particular practice.

This book is considered to be a confidential document, the contents of which are not to be revealed to persons outside the service. The first page is perforated and bears a number corresponding to that on the book itself. The recipient signs a receipt on this page, and it is torn out and retained by the Navy Department. This book, therefore, is held under a signed agreement not to reveal what its pages contain.

Of course, in target practice, broadsides are seldom fired, but, nevertheless, between \$3,000,000 and \$4,000,000 yearly is spent by the government just to train the "shooting eyes" of its gunners. It costs about \$800 for powder and shell when a single 12-inch gun is fired. It takes 330 pounds of expensive smokeless powder to send a 12-inch shell from the mouth of a cannon. A 12-inch gun can shoot twelve miles with effect. It is 53 feet long, weighs 63 tons and throws a projectile weighing 1,400 pounds.

Target practice with the great 12-inch guns is expensive. At the word "Fire" from the gun officer \$50,000 is blown into the air in the twinkling of an eye for a single broadside.

There is little room to spare in a turret. Each member of the gun crew is stripped to the waist, tense, expectant. In a moment comes the order "Load." The tableau is transformed into a

scene of action. One man opens the breech and the shell man grasps the projectile and quickly rams it home. Then the powder charge goes in, and in a flash the breech is closed and locked and the order to fire is given. The great gun emits a deafening roar and a sheet of flame. It recoils with the shock but instantly recovers, and the smoke begrimed men in the turret watch the black speck of the projectile as it skims over the water at the rate of something like thirty miles a minute. The pointer looks anxiously to see the result of his work, and his mates are almost as interested, for the reputation of the whole crew is at stake, and, furthermore, if their percentage is the best on the ship, or in the fleet, they get the trophy, which, while not amounting to a great deal, means considerable to a sailor.

#### SEVERE TEST MADE ON BIG GUNS.

Few persons realize just how great a test the big guns which go to make up the equipment of our battleships must undergo before they earn the right to Uncle Sam's firing line. These tests are made at the naval proving grounds at Indian Head, Md., a secluded spot on the banks of the Potomac River about 25 miles from Washington. Here the government owns 1,200 acres of land, and almost every day a bloodless battle between guns and armor is waged on the river front.

The conflict is jealously guarded from the public eye. The place is absolutely closed to visitors, and only those who are fortunate enough to obtain a pass from the Bureau of Ordnance at Washington are permitted to look upon the technical tests to which the guns and armor are subjected. The government tug is the only boat allowed to make a landing at the wharf. When everything is ready the officers retire to the hill in the rear of the battery, the signal is given and the man at the electric key presses the button. The flight of the shell is most carefully observed. This is done over and over again, for each gun, large and small, is fired at least five times with increasing charges of powder until the maximum chamber pressure is one and one-fourth times that required for actual service.

This is followed by the elevation and getting it pointed on a fixed mark after which it is fired over the first range, and the officers note the place where the shells fall. Nothing is left undone by the government in the equipping of our gallant sailors with the best weapons skill and science can provide.

In the majestic gallery of emblems will be representatives of all nations. War is a science. We are ready to show we have studied that science with care.

scene of action. One man opens the breech and the shell man grasps the projectile and quickly rams it home. Then the powder charge goes in, and in a flash the breech is closed and locked and the order to fire is given.

The great gun emits a deafening roar and a sheet of flame. It recoils with the shock but instantly recovers, and the smoke begrimed men in the turret watch the black speck of the projectile as it skims over the water at the rate of something like thirty miles a minute. The pointer looks anxiously to see the result of his work, and his mates are almost as interested, for the reputation of the whole crew is at stake, and, furthermore, if their percentage is the best on the ship, or in the fleet, they get the trophy, which, while not amounting to a great deal, means considerable to a sailor.

Things have changed some since Paul Jones died. In his day, when call to battle came, the order was given to buckle on cutlasses to keep the enemy from climbing over the side of the vessel. In the next naval battle a gunner will buckle to his head and breast the telephone receiver through which he will hear from the man aloft how to train his monster gun so as to sink a vessel ten, twelve and perhaps fifteen miles away.

#### SEVERE TEST MADE ON BIG GUNS.

Few persons realize just how great a test the big guns which go to make up the equipment of our battleships must undergo before they earn the right to Uncle Sam's firing line. These tests are made at the naval proving grounds at Indian Head, Md., a secluded spot on the banks of the Potomac River about 25 miles from Washington. Here the government owns 1,200 acres of land, and almost every day a bloodless battle between guns and armor is waged on the river front.

The conflict is jealously guarded from the public eye. The place is absolutely closed to visitors, and only those who are fortunate enough to obtain a pass from the Bureau of Ordnance at Washington are permitted to look upon the technical tests to which the guns and armor are subjected. The government tug is the only boat allowed to make a landing at the wharf.

When everything is ready the officers retire to the hill in the rear of the battery, the signal is given and the man at the electric key presses the button. The flight of the shell is most carefully observed. This is done over and over again, for each gun, large and small, is fired at least five times with increasing charges of powder until the maximum chamber pressure is one and one-fourth times that required for actual service.

This is followed by the elevation and getting it pointed on a fixed mark after which it is fired over the first range, and the officers note the place where the shells fall. Nothing is left undone by the government in the equipping of our gallant sailors with the best weapons skill and science can provide.

In the majestic gallery of emblems will be representatives of all nations. War is a science. We are ready to show we have studied that science with care.

## OUR FIRST WAR WITH MEXICO

"Ezra fer war, I call it murder," declared "Hosca Biglow," in that marvellous series of satires and invectives which marked an era in political literature and which pilloried the first Mexican war for all time as a deed of irredeemable iniquity.

On the other hand an immortal lyric tells of those who fought in that war that

On Fame's eternal camping ground Their silent tents are spread, And glory guards, with solemn round, The bivouac of the dead.

Never was a war, then, more eloquently lauded or more scathingly denounced than that of now nearly seventy years ago.

It began with a suggestive likeness to some present day pretensions with respect to Mexico. We were sending a military force to the frontier, but with "entirely peaceful intent." We might invade the country, but we had no thought of waging war. All we sought was to keep the peace and to obtain redress for a long series of grievances. So, after annexing that State of Texas which Americans had wrested from Mexico, after full warning that our doing so would be regarded as cause for war, we sent an army not only to the Mexican frontier but into that very frontier strip the ownership of which was in dispute between Mexico and Texas.

#### MEXICO'S NEW PRESIDENT WAS ALL FOR WAR.

It was on July 30, 1845, that General Taylor was sent thither to Corpus Christi, ostensibly to protect Texas from Mexican invasion. Then John Slidell was sent to Mexico City to negotiate a peaceful settlement of differences. But Mexico at that time, as usually for most of a century, was in the throes of a revolution, and Slidell's mission was delayed until, by the grace of the army, Herrera could be turned out and Paredes could be put in as President. The latter was far more bellicose than the former, and Slidell abandoned the mission as hopeless. Then Taylor began pushing toward the Rio Grande.

The Rio Grande was reached on March 20, 1846, General Worth leading the advance. This was near Matamoros, in the northeastern corner of the State of Tamaulipas. For some days the rival forces lay near each other without hostilities. On April 10 the first blood was shed, when an American officer was ambushed and killed by Mexican stragglers. Two days later a Mexican general ordered Taylor to withdraw his entire force beyond the Nueces River or fight. Taylor refused, declaring that his intentions were peaceful and that the responsibility of war would rest with that side which fired the first gun.

President Paredes finally declared, on April 22, that war existed, and a few days later fighting began around Matamoros. On the afternoon of May 5 occurred the battle of Palo Alto, or Tall Timber, followed immediately by that of Resaca de la Parra, in both of which the Mexicans were beaten.

Then Taylor crossed the Rio Grande in force on May 18, and the invasion of Mexico was fairly begun. But progress was slow, and it was not until September 19 that Monterey, the capital of the State of New Leon, was reached. There two days of fighting ensued, ending with the fall of the city.

It had been supposed that after one or two sharp reverses the Mexicans would admit themselves beaten and would sue for peace. But there was no sign that such would be the case. On the contrary, the progress of the invaders seemed only to unify the Mexicans and to make them more resolute in their resistance. Santa Anna, the Mexican military chieftain, had been brought by the United States from his exile in Cuba and turned loose in Mexico in the hope that he would be our ally. Instead, he took the lead against us. So more extended plans for invasion had to be devised, and the practical conquest of the whole country was seen to be necessary.

#### THEN SCOTT TOOK COMMAND IN PERSON.

So General Scott, the commander in chief of the American army, was sent thither to conduct operations against Vera Cruz and thence to march against the City of Mexico itself.

Scott sailed from New York on November 30, 1846, for New Orleans, thence to proceed to Vera Cruz. He had at his command a fleet of 163 vessels as transports, which made their rendezvous at Lobos Island, 125 miles from Santa Cruz, and from that point early in March following the advance was begun. On March 9 the whole fleet was off Vera Cruz, and landing was at once essayed. The place chosen was the beach due west of the Island of Sacrificios. Sixty-seven surfboats were used, and in a few hours the whole army of 12,000 men was ashore.

The siege, with almost incessant fighting, began the next day, and the Mexicans showed themselves mighty in defence. But the American lines drew nearer and nearer to the city walls, and on March 26, 1847, a flag of truce was sent out with overtures for surrender. On March 29 the Americans took possession of the conquered city.

#### FOUGHT HIS WAY TO WALLS OF MEXICO CITY.

There Scott established his base of operations, and prepared to fight his way up to the City of Mexico and end the war. The march was begun on April 8, and proceeded with little de-

lay until the mountain pass of Cerro Gordo was reached, where Santa Anna and his whole army lay entrenched among the hills to dispute their further progress. The Americans arrived there on April 14, and on April 17 and 18 the battle was fought. The struggle was desperate, and it involved mountain climbing almost resembling that on Lookout Mountain in the Civil War, but it resulted in the complete defeat of the Mexicans. Five generals and 3,000 other officers and men were taken as prisoners, together with spoils so vast as to cause embarrassment in their disposal.

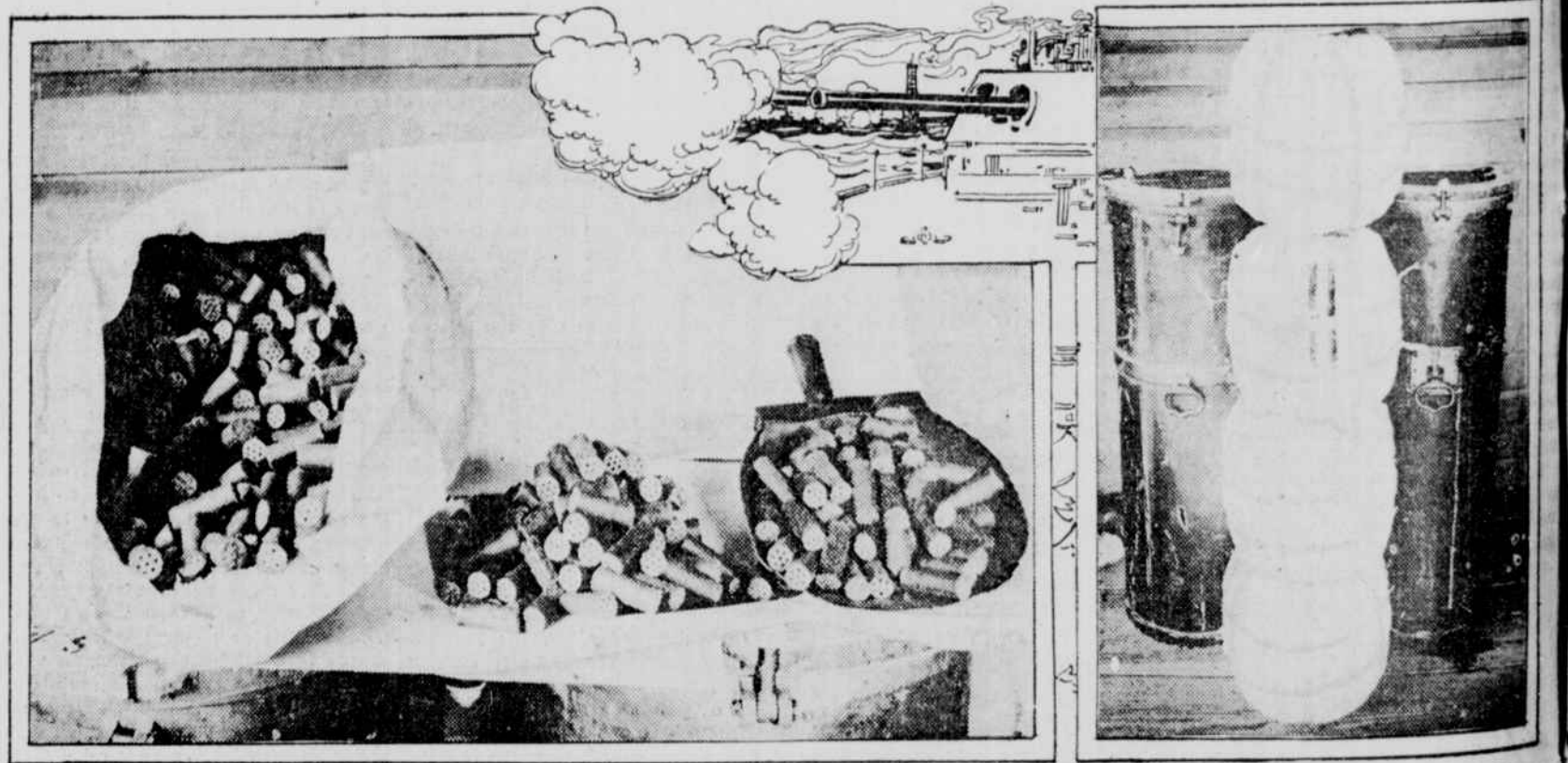
Santa Anna made his next stand at Puebla, but soon abandoned it and retired to Mexico itself, and on May 15 Scott occupied Puebla without a struggle. There a considerable halt had to be made for reinforcements and reorganization of the army, and it was not until August that the advance was resumed. By the middle of that month the army lay before the City of Mexico.

#### MEXICANS LOST EIGHT GENERALS AT ONCE.

Some days were spent in manoeuvres and preparations for a decisive struggle, and then, on August 20, the battles of Contreras and Churubusco were fought; perhaps the most stubbornly contested of the whole war. They resulted in complete victory for the Americans, but at the cost of 1,053 killed and wounded. The Mexicans lost about 4,000 killed and wounded and 3,000 prisoners, the latter including eight generals, of whom two were ex-presidents.

An armistice and negotiations for peace followed this sanguinary struggle, but without effect, and hostilities were renewed on September 7. The battles of Molino del Rey and Chapultepec followed on September 8 and 12 respectively, resulting in American victories, and on the morning of September 14 the bombardment of the City of Mexico was about to begin. But at dawn a white flag appeared on the fortress. Messengers came out to sue for peace and to offer the surrender of the city. And by breakfast time the American army was within the "halls of the Montezumas."

The Mexican war was noteworthy for the number of officers who served in it who afterward attained distinction, especially in the Civil War. General Taylor became President of the United States on the record of his military achievements. Scott was commander in chief of the army. Franklin Pierce became President and Jefferson Davis became President of the Confederate States. General Worth died soon after the war, but New York erected a monument and renamed a street in his memory.



PART OF A CHARGE OF SMOKELESS POWDER.

ONE CHARGE FOR 14" GUN

## STEAM WARSHIP A CENTURY AGO

OF course, the visit of an American armada of modern battleships with shotted guns to Mexican waters was not intended as a celebration of the centenary of the construction of the first steam war vessel, but it chances to have occurred in the year that marks the hundredth anniversary of this event. A hundred years ago this month, Congress having previously in March authorized the construction by Fulton of a steam frigate, the first steps were being taken to make the new type of fighting machine a reality. Compared with the host of successors which slipped away from our Atlantic ports a few days ago, it was an insignificant thing, but on the day of its birth it was a formidable craft.

Its awe-inspiring strength is illustrated by this description of it printed in an Edinburgh paper in 1815: Length on deck, 300 feet; breadth, 200 feet; thickness of her sides, 13 feet of alternative oak plank and cork-wood; carries forty-four guns, four of

which are 100-pounders; quarter deck and fore-castle guns 42-pounders, and farther, to annoy an enemy attempting to board, can discharge 100 gallons of boiling water in a minute, and, by mechanism, brandishes 300 cutlasses with the utmost regularity over her gunwales, works also an equal number of heavy iron pikes of great length, darting them from her sides with prodigious force and withdrawing the same every quarter of a minute.

In the language of Dominic Sampson, "Pro-digious."

But oh, what a difference between the creation depicted in the awe-inspired language of the credulous Scotchman and the reality! Instead of being 300 feet long, an immense length for vessels of that day, it was to be only 167 feet long. The author was not designing a forerunner of the modern dirt scow; therefore, instead of a beam of 200 feet, the proposed width was to be 56 feet. Moreover, the bulwarks, instead of being 13 feet thick, an unnecessary thickness, were to be slightly less than 5 feet. The copper boiler was to be in one of the hulls,

while the engine, 120-horsepower, was to be in the other.

President Madison had examined the plans and model in November, 1813. If scared New Yorkers doubted Fulton's ability, it was further bolstered up by communications from a number of noted naval officers, including Stephen Decatur and Oliver H. Perry.

The burden of their belief in the capacity of the proposed steam frigate was couched in these words—a printed copy of which was recently discovered in a contemporary newspaper:

Her machinery being guarded, she cannot be crippled. . . . Her sides are so thick as to be impenetrable to every kind of shot. . . . In a calm or light breeze she can take choice of position or distance from an enemy. Considering the speed which the application of steam has already given to heavy floating bodies, we have every confidence that, should such vessel move only four miles an hour, she could, under the favorable circumstances which are always to be gained over enemy's vessels in our ports, harbors, bays and sounds, be rendered

more formidable to an enemy than any kind of engine he hitherto invented. And in such case she would be equal to the destruction of one or more enemy-ships or of compelling her to depart from our waters.

In due course the Demologos was completed. She was armed with captured British guns hauled from Trenton over miry roads. On July 4, 1815, she made a trial trip to the east of Sandy Hook, covering 53 miles in 8 hours 20 minutes, or at a speed of 6.36 miles an hour. On another occasion, carrying 26 guns, ammunition and stores and drawing 11 feet, one foot more than planned in the design, she ploughed along at the rate of 5.5 miles an hour, a speed much in excess of Fulton's guarantee.

According to all accounts that were her last voyage. The war was over. She was tied up at the Brooklyn navy yard to serve as a receiving ship. Here she lay until June 4, 1820, when an explosion on board completely destroyed her and killed twenty-five and wounded nineteen persons.