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MUNITIONS IN LINCOLN'S DAY

The tremendous shift in the type of munitions used The tremendous shift in the type of multions used during the past decade reveals the most startling development in mechanic art which civilization has observed. The simplicity of devices for war in Lincoln's day and his reaction towards some of the innovations recommended, is of interest when the whole world seems to be drawn into a discussion of war implements by present

The name of Erickson immediately comes to mind when one is thinking of innovations in the field of munitions, especially as they had to do with navigation. Erickson as early as 1828 invented a self-acting gun-lock to be used on naval cannon. In 1841 under order of the United States he designed the "Princeton", the first war vessel

States he designed the "Princeton", the first war vessel to have its propeller under the water out of range of gun shot, with other features such as a telescopic smoke-stack, gun-carriages of wrought iron, and an optical instrument for ascertaining distances. The "Princeton" is regarded as the pioneer of modern naval construction. It is the idea embodied in his famous "Monitor," "the cheesebox on a raft," as it was called, for which he is best known. The notion first took form as early as 1836 and in 1854 he submitted plans for the war vessel to Napoleon III. The first vessel of this type, however, was built at the beginning of the Civil War in 1861 at Green Point, New York. The important place the Erickson warships took in the naval battles of the Union is well known.

President Lincoln visited the "Monitor" a few days

President Lincoln visited the "Monitor" a few days after its battle with the "Merrimac." Assistant Secretary of the Navy Fox made a short speech in which he said he was familiar with the story of the building of the "Monitor," and while he did not wish to withhold any credit from Captain Erickson, the inventor, he said that "the country was principally indebted for the construction of the vessel to President Lincoln."

The day ofter Lincoln Worden and the "Monitor"

The day after Lieutenant Worden and the "Monitor" met the "Merrimac", he was detained in his room by injuries and was there visited by President Lincoln. He was advanced to the rank of Captain for his bravery. Lincoln's note written to Gideon Welles, Secretary of the Navy, on the day of his visit to Worden is of interest:

Executive Mansion, March 10, 1862.

Hon, Gideon Welles.

My dear Sir.

I have just seen Lieut Worden, who says the "Monitor" could be boarded and Captured very easily, first, after boarding, by wedging the turret, so that it would not turn, and then by pouring water in her & drowning her machinery. He is decidedly of Opinion she should not go sky-larking up to Norfolk.

Yours truly
A. Lincoln

Dahlgren

The name of another Swedish inventor should also be mentioned in connection with the "Monitor", as she carried a new type of gun called a Dahlgren gun. The first gun according to his design was cast in 1850, and later the inventor produced a rifled cannon and still later developed the boat howitzers with iron carriages.

It was under Dahlgren's supervision that the ordnance department at Washington acquired extensive additions: a foundry for making cannon, a shop for the manufacture of gun carriages, an experimental battery, and so on. Lincoln placed great dependence in Dahlgren as an authority on arms and was interested especially in the new developments in rifles. When some one approached him with a weapon which seemed to have merit be would with a weapon which seemed to have merit, he would write a note similar to this one sent to Dahlgren on June 10, 1861:

Executive Mansion, June 10, 1861

Capt. Dahlgren

My dear Sir:
You have seen Mr. Blunt's new gun—What think you of it? Would the government do well to purchase some of them? Should they be of the size of the one exhibited or of different sizes.

Yours truly,

A. Lincoln
On an occasion when Lincoln was at the Navy Yard On an occasion when Lincoln was at the Navy Yard witnessing experiments with a newly-invented gun and a discussion was underway about the merits of the new gun, Lincoln observed an ax on the wall and taking it down said: "Gentlemen, you may talk about your 'Raphael repeaters' and 'eleven-inch Dahlgrens', but here is an institution which I understand better than any of you." Upon making this statement he held the ax out at arm's length by the end of the handle, a feat which no one in the party could perform.

Gatling

The most remarkable invention during the war, although it was not perfected to the extent that it became of much use, was the Gatling gun or, as we call it, the

of much use, was the Gatling gun or, as we call it, the machine-gun.

Richard Jordan Gatling was born in North Carolina. Even as a boy he had an inventive mind and designed several improvements on machinery for planting and thinning cotton, sowing rice, and finally for drilling wheat. In 1850 he invented a hemp-breaking machine, and in 1857 a steam plow. He attended lectures on medicine at Laporte, Indiana, and Cincinnati, Ohio, but never practiced his profession.

When the war broke out he conceived the idea of a revolving battery gun, and the first of these was made in Indianapolis in 1862. An assignment of a dozen was sent to General Butler and used by him on the James River with more or less success. Gatling began to improve his gun, but before he had it perfected so that it was generally accepted (in 1865), the war had come to a close.

was generally accepted (in 1865), the war had come to a close.

The shells in a feedcase were fed into a hopper at the top of the gun while the gunner turned a crank by which the gun revolved. Other feedcases could be substituted without interrupting the discharges. The original Gatling gun fired only from 250 to 300 shots per minute, but Gatling later perfected the instrument so that it fired 1200 a minute.

The Lincoln National Life Foundation is in possession

The Lincoln National Life Foundation is in possession of an original letter written by Mr. Gatling to Miss Lizzie Jarvis, in which he not only explains his invention but also explains that he believes its development will not necessitate the use of large armies, thereby reducing the suffering on the battlefield. The copy of the original letter follows:

Hartford, June 15th, 1877.

My Dear Friend.

It may be interesting to you to know how I came to invent the gun which bears my name; I will tell you: In 1861, during the opening events of the war (residing at the time in Indianapolis Ind.) I witnessed almost daily the departure of troops to the front and the return of the wounded, sick and dead; The most of the latter lost their lives, not in battle, but by sickness and exposure incident to the service. It occured to me if I could invent a machine—a gun—which could by its rapidity of fire, enable one man to do as much battle duty as a hundred, that it would, to a great extent, supersede the necessity of large armies, and consequently, exposure to battle and disease be greatly diminished. I thought over the subject and finally this idea took practical form in the invention of the Gatling Gun.

Yours truly My Dear Friend.

Yours truly R. J. Gatling Miss Lizzie Jarvis