

11. CPA PROJECT APPLICATION FORM

[CPC Use Only: Date Received 1/2/20 By: SAMMIE KUL
Assigned CPC #2021- 10]

If possible, use word processor to fill out form. Please answer all questions, use "N/A" if not applicable.

1. a.) Applicant Name and Organization: Last Black First DONALD
Organization(s) (if appropriate) Commemorations and Celebrations Committee

b.) Regional Project: Yes ☒? or No? ☐ If Yes, Town/Organization: Commemorations & Celebrations

2. Submission Date: 1/2/20

3. Applicant Address: St. 573 Longley Rd
City/ State: Groton, MA ZIP: 1450

4. Ph. # 508-864-7242 Email: d.r.black@charter.net

5. CPA Purpose. Check all that apply:

Community Housing ☐ (Affordable Housing) ☐ Historic Preservation* ☒ Open Space: ☐
Recreation ☐

* As per MA General Law Chapter 44B, proposed historic projects that are not on the structures listed on the state's registry of historic places require a determination by the Groton Historic Commission that the proposed project is of historic significance.

6. Town Committee or boards participating: Parks Commission; American Legion

7. Project Location/Address: 77 Hollis Street

8. Project Name: WWI Cannon Restoration

9. Additional Responsible Parties (If applicable):

Role (specify)	Name	Address	Ph. (w) (cell)	Email
Property/Site Owner	Town of Groton			
Project Manager	Don Black			
Lead Architect	Don Black			
Project Contractor	Don Black			
Project Consultants	Don Black			
Other:	Don Black			
Other	Don Black			

10. As appropriate, indicate if proposal requires P&S agreement ☒ Deed ☒
Option agreement ☒ Other-describe: NA

11. a.) Assessor info. (map/ block/ lot id.(s)): 112-106 b.) Tax classification type: RA

12. Permits required: Zoning: _____ Historic Preservation: _____ Other: _____

13. Historic Commission Approval signoff (when required): _____ Date: _____

14. Funding: a.) Requested from CPC: \$ 15,000.00 b.) Committed from other sources: \$ 0.00

c.) Annual anticipated total income: \$ 0.00 d.) Annual anticipated total expense: \$ 0.00

d.) Anticipated net income (loss): \$ 0.00 e.) Estimator name/company: E N Carter

15. CCP Objectives - use codes from Section 5 to indicate all that apply: 5.1.1

16. Project Timelines: Proposed Start Date: 7/1/20 Projected Complete Date: 7/1/21

17. Estimated Delivery Date of Completion Report to CPC: 8/1/21

18. Project description and explanation (attach additional sheets as needed): _____

Please see Attachment "A".

19. Feasibility: Earl Carter is an expert in cannon restoration and will perform and oversee every detail.

20. List of attachments: Attachment "A"; Pictures and diagrams, Cannon history.

21. Additional Information: See Attachment "A".

22. Management Plan: See Attachment "A".

23. Applicant Signature: _____ Date: 1-1-20

Co Applicant Signature: _____ Date: 1/2/20

Co Applicant Signature: _____ Date: _____

18. Project description and explanation (attach additional sheets as needed):

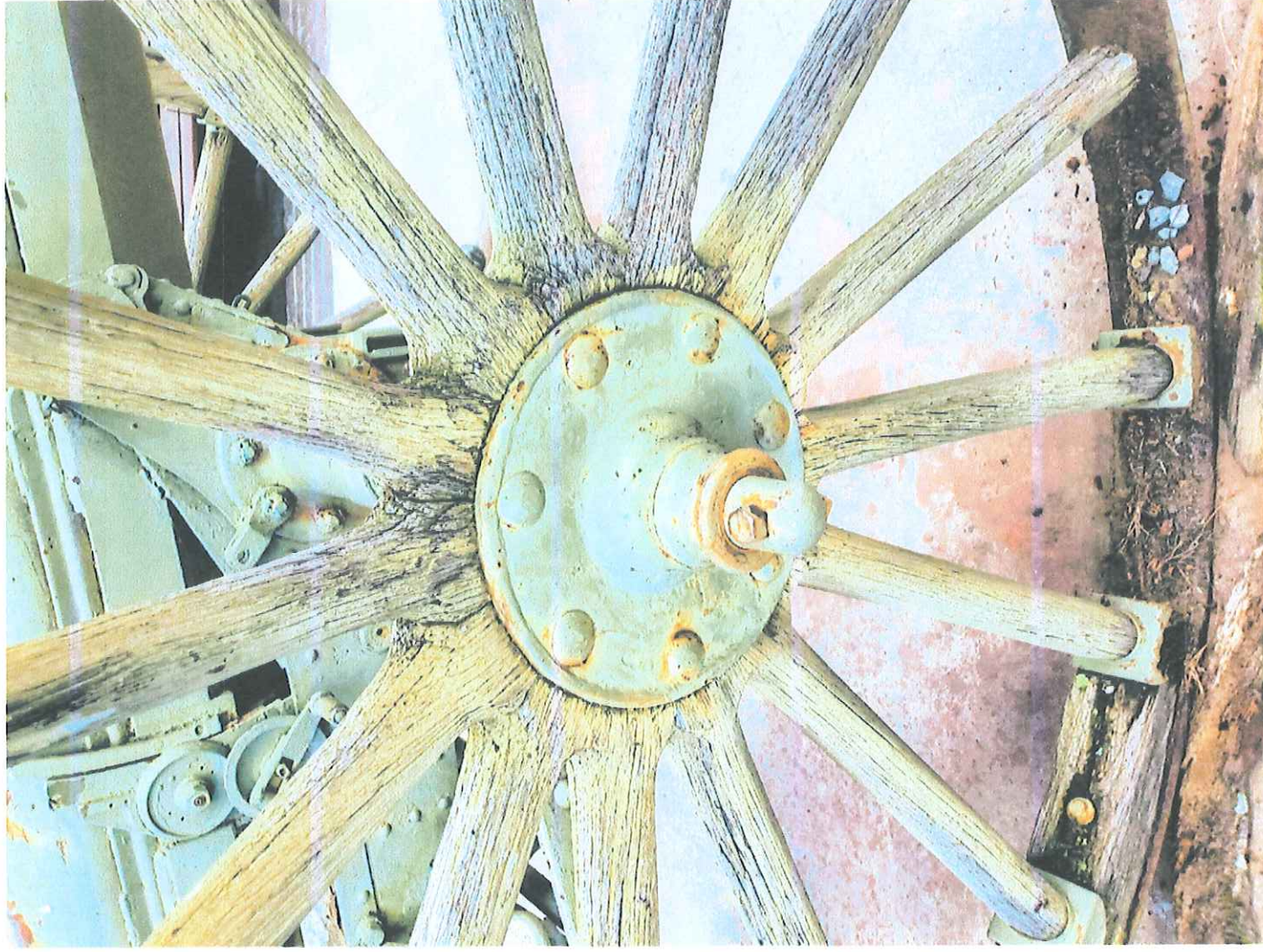
Attachment "A".

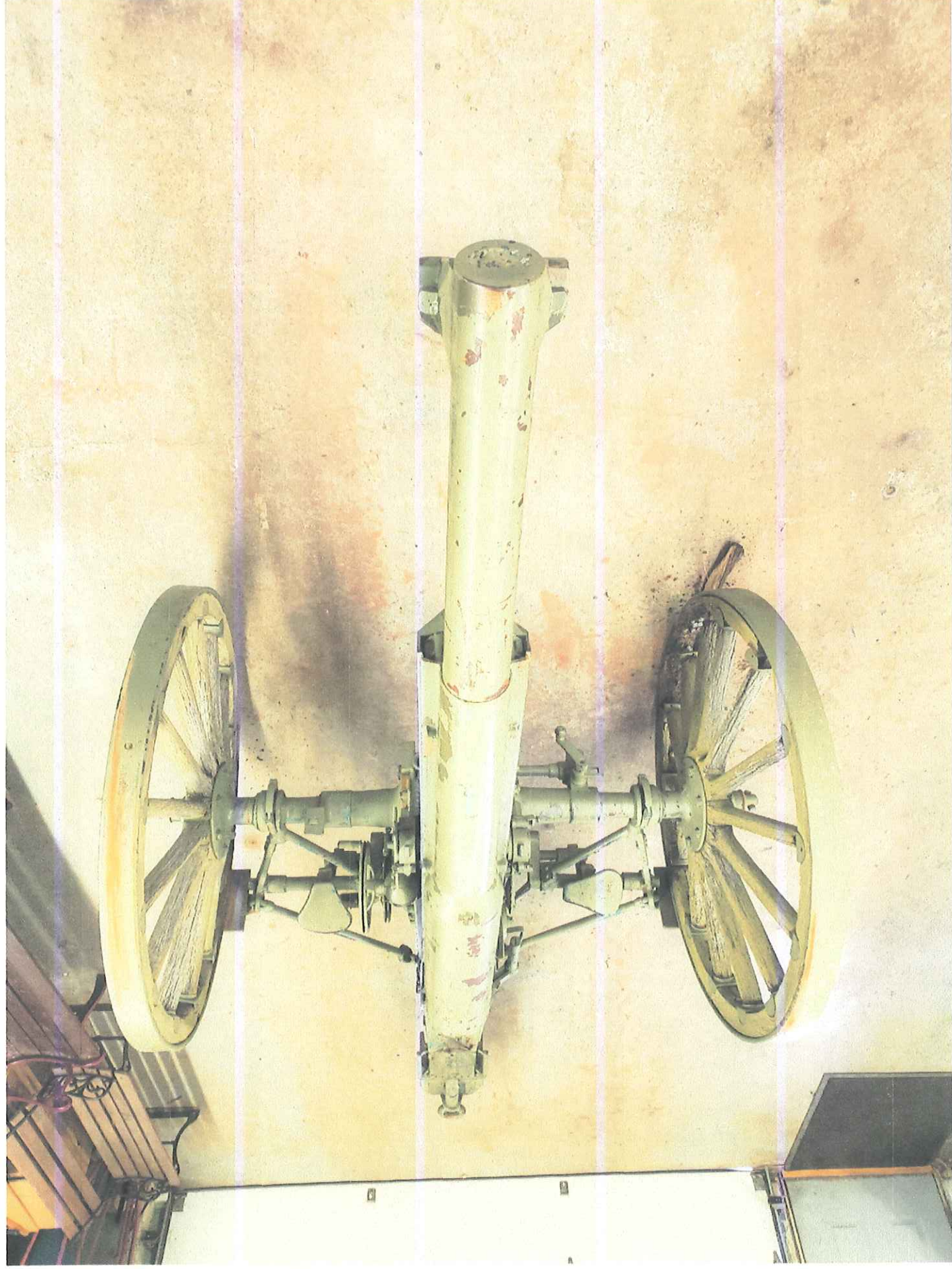
The goal of the Celebrations and Commemorations Committee is to restore the "Cannon de 75 mle 1897", which was a gift to the Town of Groton from the U.S. Army in 1919 at the dedication of the Lawrence W. Gay Post 55. The Cannon has resided at Legion Common for the last 100 years in honor of Lawrence W. Gay who was killed in action just days prior to the signing of the Armistice ending hostilities of World War I. In recent years the cannon has suffered from the effects of weather, fallen into disrepair and become a safety issue. It currently resides in Earl Carter's garage on Lone Lane in Groton, where it is being measured, photographed and indexed so that proper replication can take place.

The membership may recall the work and restoration that Mr. Carter performed on the Revolutionary War Cannon that spent a great number of years behind the former Groton Historical Society.

The Scope of work is as follows:

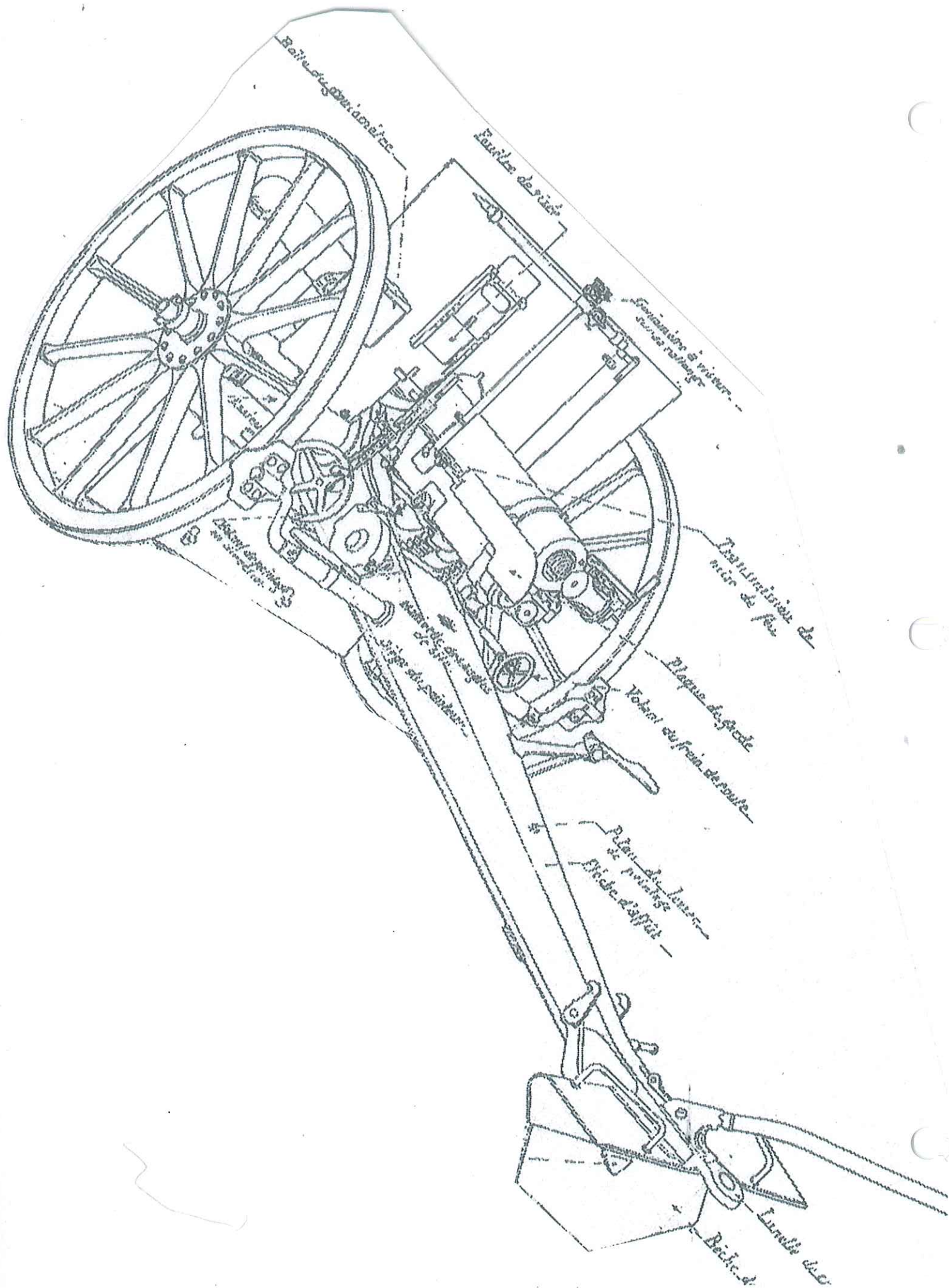
1. Remove the cannon to a safe and dry location.
 - a. Completed
2. Assemble a support carriage for wheel removal.
 - a. In Process
3. Wheel removal and cataloguing of parts.
 - a. Wheels are in disrepair due to ground moisture.
 - b. Wheels must be disassembled to determine if parts can be salvaged.
 - c. Parts must be measured and indexed for replication.
 - d. Upon indexing, parts will be transported to a wheelwright for rebuilding and restoration.
4. Sand blasting and structural repair.
 - a. Sand blasting will remove old and chipped paint.
 - b. Cracks in the structure and old welds will be repaired.
5. Painting.
 - a. Painting to original color.
6. Wheels reinstalled.
7. Granite slabs.
 - a. Granite slabs will be installed on site to keep the wheels and trunnion out of the moist ground.
8. Installation and onsite completion.

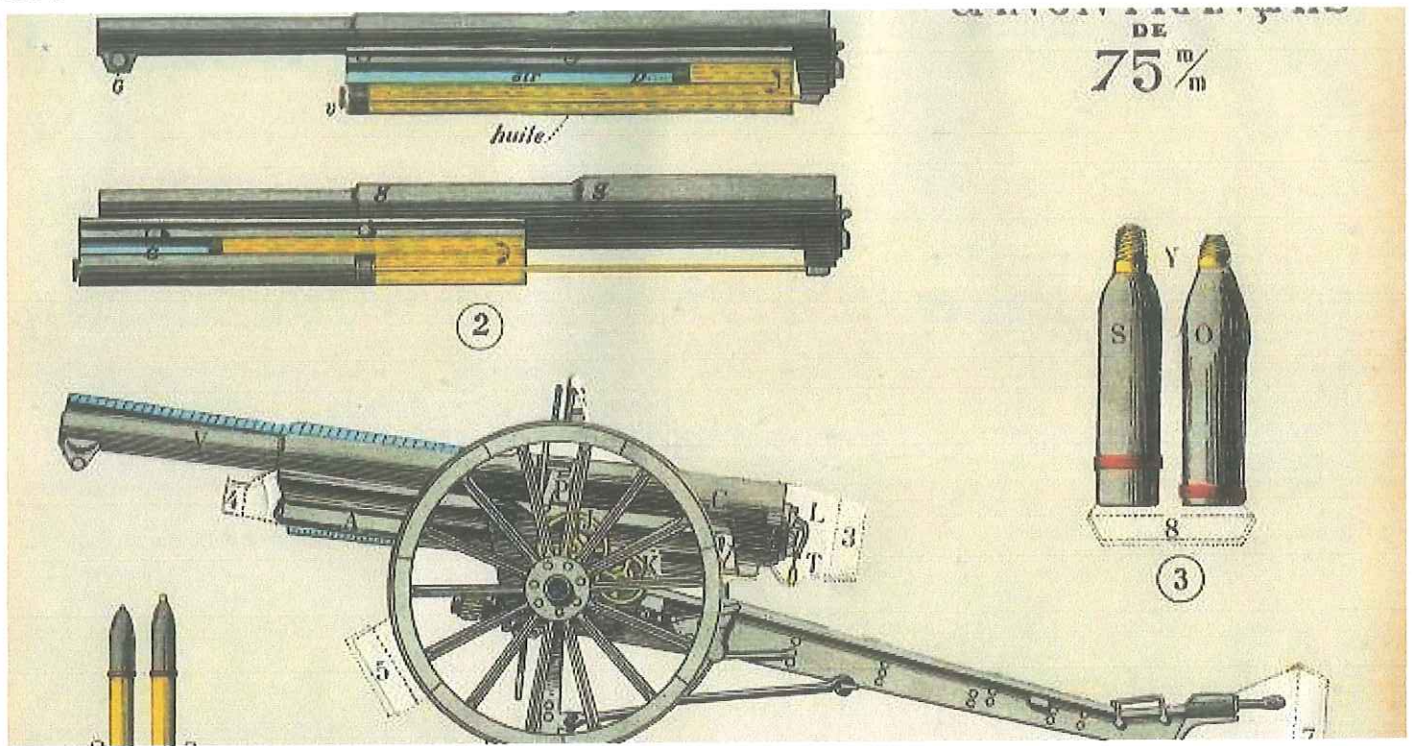












OFF Wheel c/L

One of the finest artillery pieces of her time and the first "true" modern artillery system adopted by a national army was the

French-made Canon de 75 modele 1897. Initial development relied on several advancements prior to 1897 which included the use of single-piece ammunition containing both shell and charge as well as "smokeless" powder, a "rotating screw" type breech mechanism and a hydro-pneumatic short recoil system that allowed the weapon to remain in place after firing the latter development thusly not requiring the crew to "re-aim" their weapon. All of these developments occurred in time for French engineers to be experimenting with a 57mm prototype utilizing the newfound technology in 1891. The work eventually graduated to become a 75mm design with a long-recoil mechanism under strict secrecy - such were the high-level circumstances surrounding the development. Field testing commenced in 1894 with excellent results save for leakage from the hydraulic system. Once the hydraulic system was perfected, the weapon system was adopted by the French Army as the Material de 75mm Mle 1897 in 1898 and officially unveiled in the summer of 1899 to the public. Production would be handled out of the Puteaux, Bourges, Tarbes and St Etienne government arsenals to which over 21,000 would ultimately be produced beginning in 1897, spanning until 1940.

For its time, the mle 1897 was a sleek instrument of war. She weighed in at 3,400lbs with a near-9 foot long barrel in the 155mm caliber. The internal design of the barrel assembly sported rifling to help the exiting projectile attain the desired stabilization during flight. Like other modern towed artillery systems, the modele 1897 essentially consisted of the gun barrel, barrel cradle, shield and carriage. The carriage consisted of two multi-spoked tires attached to a pole-type trail assembly which allowed the system to be pulled by horses or mechanized movers (the latter was more typical in the early going). the recoil mechanism was set under the barrel near the gun mount. The weapon was loaded through the breech by managing a handle, thusly opening the hollow breech for a fresh projectile. The weapon system was crewed by a standard group of six men, each charged with a specific task during firing. The weapon was further serviced by a team of six horses during transport as well as their applicable masters. Ammunition was supplied by various means.

The modele 75 was cleared to fire two basic projectiles consisting of a typical High-Explosive (HE) type and shrapnel type. The HE shell weighed in at 12lbs and was detonated upon impact (following an extremely short delayed fuse) with a solid, earthen surface - namely the ground or fortified structure. The shrapnel shell also featured a short delayed fuse but this projectile spewed out nearly 300 lead balls in every direction for maximum carnage. Additional shells types ultimately incorporated rather nasty burning substances to further cause havoc at ground level. An anti-tank shell led to the weapons use as a tank-killer for a time (resulting in the modernized Canon de 75 mle 1897/33). As with an, Close X Jern breech-loaded artillery system, the spent 75mm case was ejected when the breech handle was actuated, the breech now ready to accept a fresh 75mm projectile. The weapon managed a muzzle velocity of 1,600 feet per second with an effective range out to 9350 yards utilizing HE ordnance (less so for shrapnel shells). The gun barrel had a traverse of six degrees with an

Specifications



Year: 1897

Manufacturer(s): State Factories - France / United States

Production: 21,500

Capabilities: Fire Support/Assault/Breaching;

Crew: 6

Length: 8.83 ft (2.69 m)

Weight: 2 tons (1,544 kg); 3,404 lb

Power: None. This is a towed artillery piece.

Range: 5 miles (8 km)

Operators: Belgium; Finland; France; Nazi Germany; Poland; Portugal; Romania; Serbia; Spain; United Kingdom; United States



3,000 yards utilizing HE ordnance (less so for shrapnel shells). The gun barrel had a traverse of six degrees with an elevation range spanning -11 to +18 degrees.

The key to the success of the modele 1897 lay in its recoil system which allowed the weapon to stay trained on the target/target area. In the past, the recoil effect nullified any tactical gain on the part of the gunnery crew for the weapon system recoiled rearwards, losing its target in the interim. This forces the crew to reposition their cannon before firing another projectile off. The hydro-pneumatic recoil system of the modele 1897 absorbed all of the recoil force, keeping the gun - and more importantly the barrel - still trained upon the target/target area. As such, gunnery crews could now loose off multiple rounds in succession, giving such a weapon a vast technical and tactical advantage over more traditional foes. A trained and combat-experienced crew could easily achieve between 10 and 15 successive firings of their 75mm ammunition, all with very accurate results when compared to her contemporaries. When fielded en masse, the modele 1897 could cover large swathes of terrain, raining down artillery fire as required.

Prior to World War 1, the modele 1897 still remained something of a nationally-guarded secret. It was not until World War found Europe - and in particular France - in 1914 that the weapon took center stage. Some 4,000 units were available at the time of France's declaration of war on Germany as the world geared up for one of the bloodiest conflicts in human history. Wartime production across France increased and this included the critical ammunition supplies needed to manage the war. The war soon turned into the stalemate known as trench warfare to which all sides dug in for the long haul, leaving European countryside in ruins. The modele 1897 proved its worth in the shelling of the Germans, particularly at the Battle of the Marne in 1914 and the Battle of Verdun in 1916. For the most part, artillery units ran their guns all day long in an effort to soften up key positions and keep enemy forces at bay. If the weapon showcased any limitations to her design it was in the rather limited power of her 75mm shell, to which many early production models were of inferior quality to boot. The 75mm shell simply did not have the firepower needed to break through the German network of obstacles. it was, however, a grand weapon for decimating waves of suicidal German soldiers attempting to storm Allied positions. The Americans purchased hundreds of the French gun while the British, forced to use it due to losses incurred of their own weapons, also became major operators (under the designation of Ordnance, QF, 75mm Mk 1).



Within time, however, the modele 1897 was simply not up to the task of greater damage at longer ranges. Prior to the war, French authorities were not keen on advancing their stable of artillery systems beyond their vast supply of modest 75mm arms. The war showcased a definite need for artillery systems of larger caliber - particularly 105mm and 155mm forms - to fill the limitations of the 75mm-minded weapons. It was not until 1917 that the French Army was finally able to reinforce the lines with 155mm Schneider howitzers and 155mm GPF series cannons. To that end, the modele 1897 was still fielded through to the end of the war and used in the inventories of several other armies in the conflict. It also formed the main gun armament of the rather cumbersome St Chamond tank.

During the years following the war and into the 1920s and 1930s, the modele 1897 still made up a large part of the French artillery inventory. Throughout the 1930s, Adolf Hitler rose to power in Germany, ultimately reaching the position of High Chancellor and build an army to suit his needs. World War inevitably reached France once again and its unprepared military was thrown into the fray, and this included approximately 4,500 surviving examples of modele 1897 cannons.

Prior to World War 2, however, the modele 1897 was modified in several ways. Armor-piercing rounds were introduced in 1933 to produce the Canon de 75 mle 1897/33 mark. This version also brought forth use of a split trail carriage which allowed it to be towed by mechanized vehicle. Rubber-tired road wheels with steel rims now replaced the dated spoked wheels of old. The Americans selected the modele 1897 as the main gun weapon of choice for their new M3 Lee/Grant and M4 Sherman medium tanks. These weapons were locally produced in American factories. Poland became another notable operator of the gun and knew them as Armata Polowa wz. 97/17, also moving to utilize a split trail carriage system. The French field howitzer version also spawned a mountain gun of 1919 as well as a 1928 model.

The modele 1897 series was long past due at this juncture in history. More contemporary designs now overshadowed the inherently strong qualities of the French design to the point that its rate-of-fire and range were either matched or surpassed by competing systems. Regardless, France was at war and it needed any weapon available to stem the tide of the German military war machine - a machine that had already overtaken Poland and the Low Countries. After Germany conquered northern France and Paris, it reconstituted hundreds (if not thousands) of modele 1897 guns to add to the stable of hundreds of captured Polish 75mm wz. 97/17 guns. Captured French guns took on the German Army designation of 7.5cm FK 231(f) and were quickly issued to local defense units while the main army elements took care of further business elsewhere. The large stockpiles ultimately saw their positioning along Hitler's grand "Atlantic Wall" across northern France and Norway to stave off any Allied amphibious landing attempt. After Hitler committed his forces to attacking the Soviet Union, the German Army was thrown aback by the arrival of the stout T-34 Medium Tank which proved unbeatable to current German anti-tank weaponry. As such, scores of the French 75mm guns were pressed into service firing an ad hoc German anti-tank shell. These weapons were given PaK 38 series carriages to contend with the revised recoil forces and capped by a special muzzle brake. These weapons were known to the German Army under the designation of 7.5cm PaK 97/38 and proved adequate for the role as an interim measure.

After the war, the modele 75 was largely obsolete but in such large circulation that the type continued service with many national armies unwilling or unable to upgrade. Some can even be found in modern-day inventories to an extent, keeping the legend of the modele 1897 series alive and well. Many survive as museum pieces for thorough study. In all, operators of the weapon included France, Nazi Germany, the United States, Poland, Belgium, Serbia, Romania, Finland, Portugal and Spain among other French colonial interests of the time. Beyond actions in World War 1 and World War 2, the modele 1897 could be seen in combat during the Boxer Rebellion (1899-1901), the Polish-Bolshevik War (1919-1921), the Rif War (1920-1926) and the Spanish Civil War (1936-1939).

