

Durand Group  
Beaumont Hamel Project 5<sup>th</sup> –14th May 2006  
Archaeological Artefacts  
Analysis of Small Arms Ammunition Recovered



By Mark Khan  
25<sup>th</sup> May 2006



## Introduction

As part of the archaeological investigations, carried out, as part of the Durand Group May 2006 Project, at the Canadian Memorial Park - Beaumont Hamel, a proportion of the artefacts found, consisted of small arms ammunition.

Few such archaeological artefacts, can present the finder with such information as small arms ammunition (SAA). By its nature SAA, should by virtue of cartridge headstamp information, provide details of Manufacturer (& sometimes location of manufacture), type of ordnance & date of Manufacture.

This document represents an analysis, of a sample of the ammunition recovered using both headstamp & type analysis.

The ammunition represents examples used by the British, French and German Armies and comprised of both "spent" and "Live" examples.

A map is represented, showing the approximate location of where the artefacts were recovered & a more detailed explanation of the type of ammunition.

No specific archaeological interpretation is made within this document, but the types represented, do follow the historical chronology of the immediate battlefield. Some artefacts were recovered, contextual to the archaeological investigations being carried out, at specific project sites and some were recovered as non-contextual surface finds.

### Summary of Ammunition Analysed

x1 British .303 Mark VII Ball Round – **Site A**

x1 German 7.92 Mauser Case – **Site A**

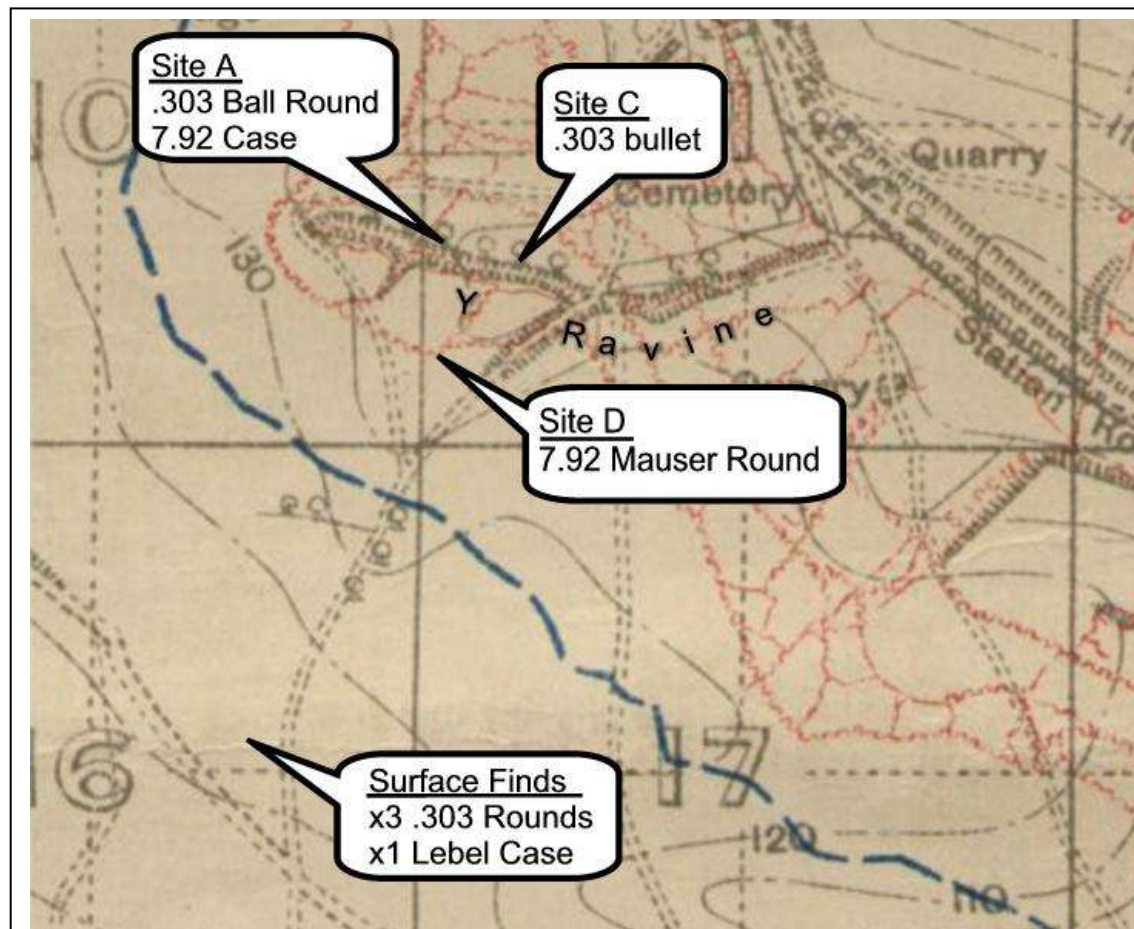
x1 German 7.92 Mauser round – **Site D**

x1 .303 Ball round – **Site C**

x1 8mm Lebel Ball round – **Surface Find**

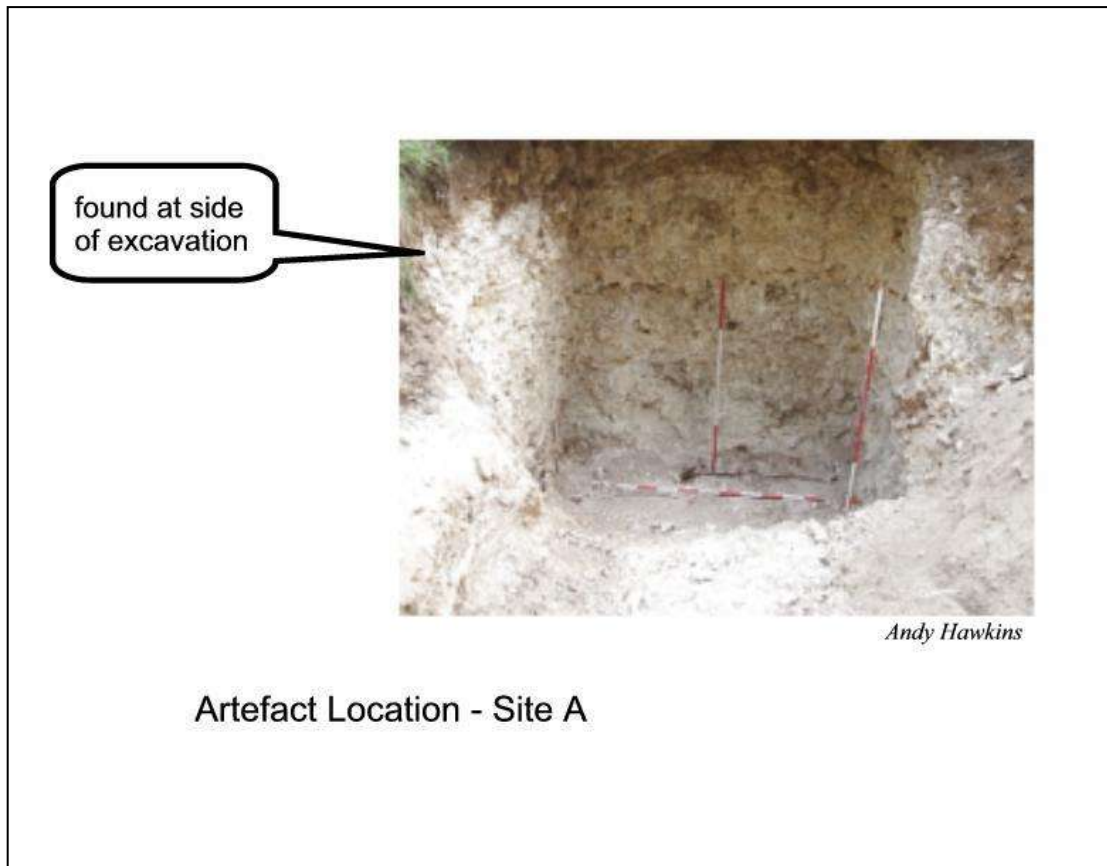
x3 British (US Manufacture) .303 Mark VII Ball Rounds – **Surface Find**

## Find Locations

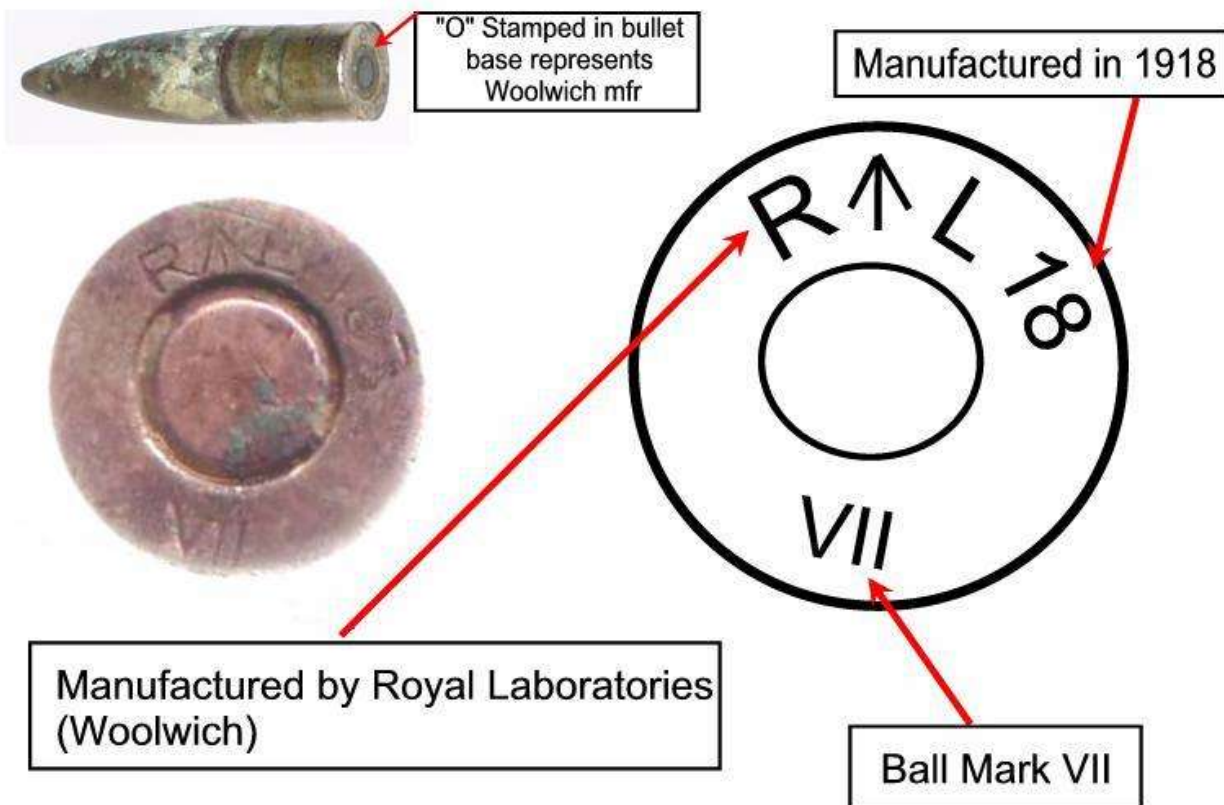


Original Trench Map -David O'Mara - Croonaert Research Services].

## Site A – British .303 Mark VII Ball Round



## .303 Mark VII Ball Round



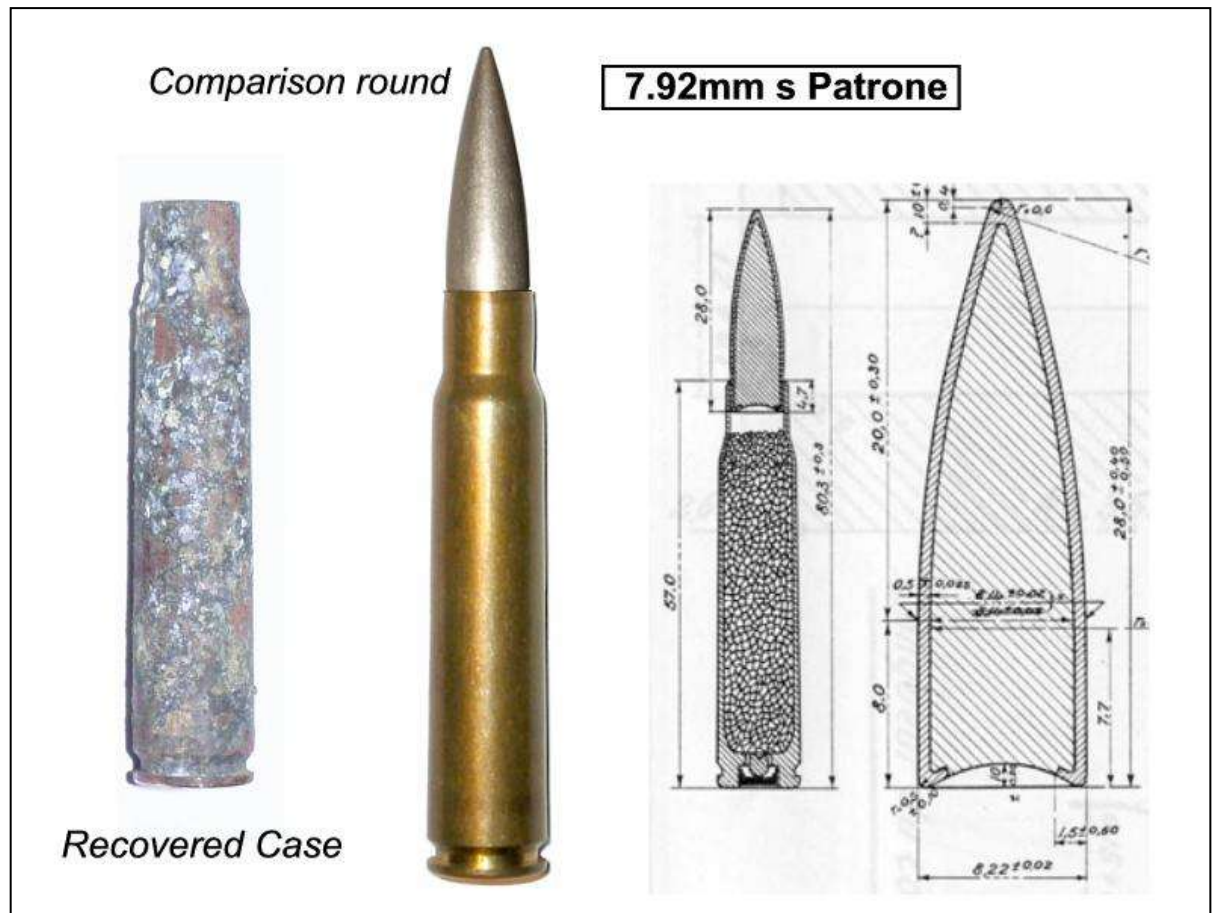
Women war workers finish small arms cartridges in the Small Arms Cartridge Factory (3) at **Woolwich Arsenal**. (IWM)

303 Ball Mark VII Output From The Royal Laboratory Woolwich for 1918

Month	Output
January	40,108,000
February	32,640,000
March	42,802,000
April	51,209,000
May	45,600,000
June	58,950,000
July	33,050,000
August	30,628,000
September	25,087,000
October	21,400,000
November	14,050,000
December	4,750,000
<b>Total</b>	<b>400,207,000</b>

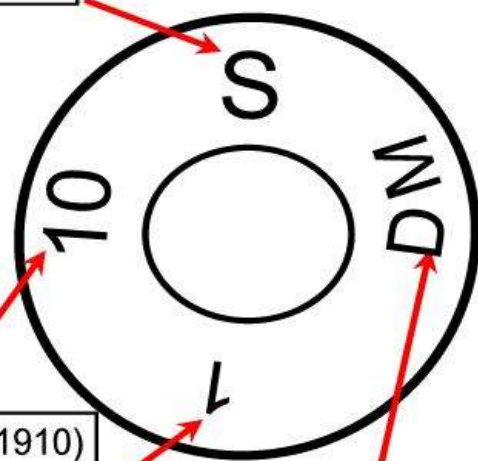
The round recovered represents a very small part of the output from Woolwich during 1918 – in excess of a staggering 400 Million rounds.

Site A – German 7.92mm Case



7.92mm s Patrone

"S" Refers to bullet type "Spitz" (or Pointed)



Year of Manufacture (1910)

Month of Manufacture

Manufactured by Deutsche Metallpatronenfabrik, Karlsruhe, Germany

**Site D – German 7.92 S Patrone Round**



Site of Trench Excavation



Rounds Excavated from Trench site, with other artefacts

**7.92mm s Patrone**

*Comparison round*



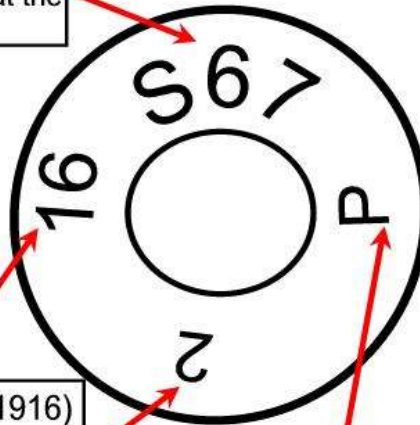
*Recovered Round*



*Bullet displaying inner lead core & remnants of mild steel & cupro nickel or Tombak clad jacket*

**7.92mm s Patrone**

"S" Refers to bullet type "Spitz" (or Pointed) & the "67" refers to the % of copper that the case is made up of



Year of Manufacture (1916)

Month of Manufacture

Manufactured by Polte, Magdeburg, Germany

**.303 Mark 7 Ball Bullet – Site C**

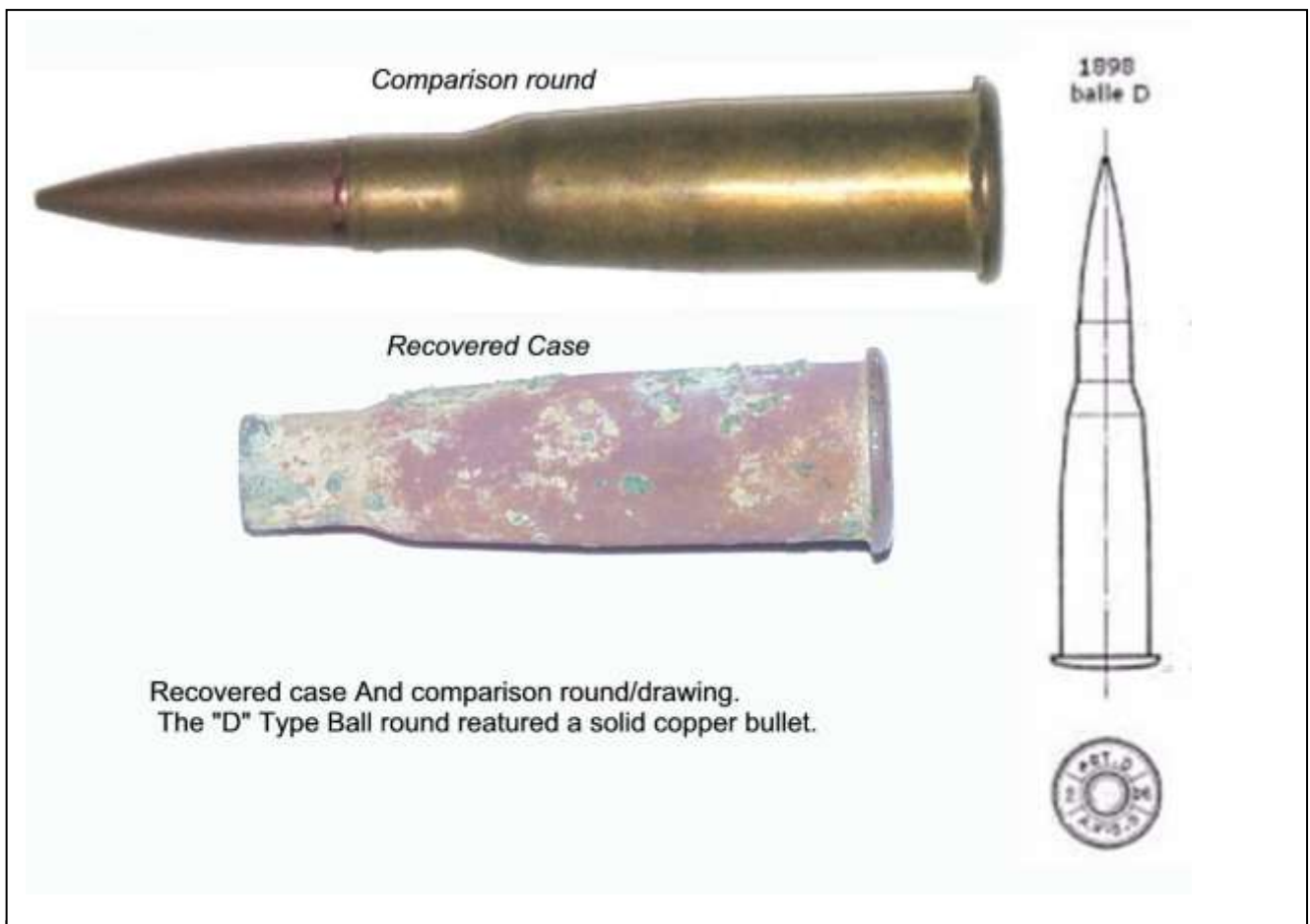


Unfired Round, featuring x3 stab crimps that are slightly out of alignment with the bullet cannelure. This may have been a manufacturing fault and may have resulted of the bullet being seated incorrectly in the case. This may have led to the round misfeeding in a weapon or simply being discarded by the user. This in turn may have led to the round being separated from the case for some reason.

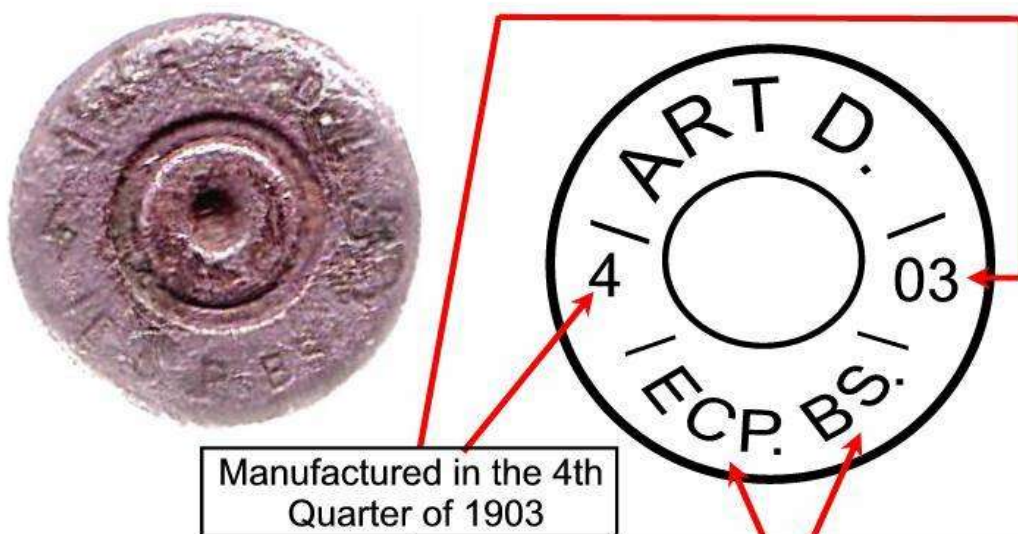




## 8mm Lebel Case – Surface find



## 8mm Lebel Ball Type D (ART D Model Case)



Case produced (ECP) and metal  
also furnished (BS) by Ecole Centrale  
de Pyrotechnie, Bourges, France

**x3 303 rounds (US Contract Manufacture) – Surface find**

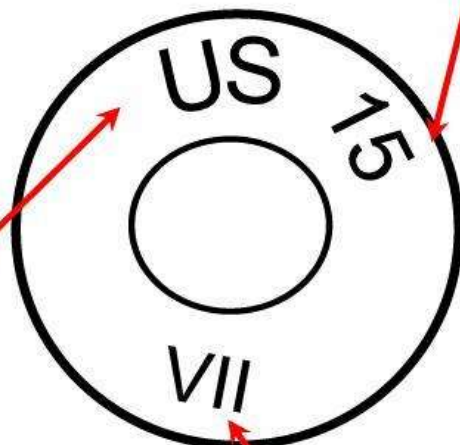


x2 partial & 1 complete round were recovered. The rounds were in the remains of charger(heavily corroded). This ammunition was produced as the result of a British Government Contract. It is commonly believed, that most of these rounds were only ever used for 2nd line training. Spent examples of this type of ammunition, can be found in proliferation in the UK at the old Beaches Barn Field Firing Area on Salisbury Plain. Due to being of inferior quality, In some cases this ammunition was actually condemned as unservicable & destroyed, or converted to blank. As such, to find such rounds on an actual battlefield site, may be quite unusual. The double cannellure on the bullet is thought to derive from the fact that British ammunition required a 3 stab crimp to secure the bullet within the case. US ammunition is manufactured by crimping the neck of the case. To mitigate a major re-tooling of US manufacturing capability, these cases were therefore manufactured with both neck and case crimp cannellures.

**.303 Mark VII Ball Round (US Mfr)**



Manufactured in 1915



Manufactured by United states Cartridge Co.  
Lowell, Mass, USA

Ball Mark VII

## **Bibliography**

<http://www.8lebel.org> - Le 8mm Lebel

The Cartridge Guide – Ian V Hogg (Arms & Armour Press)

Cartridge Headstamp Guide – Henry P white & Burton d Munhall (H.P Laboratory, Bel Air, Maryland, USA)

Trench Map - <http://pathsofglory.co.uk>

The Royal Laboratory, Woolwich – John Pople Crump (Private Publication)

.303 Inch – A history of the 303 Cartridge in British Service (Private Publication)

German 7,9mm Military Ammunition 1888 –1945 – Daniel W Kent (Private Publication)

Imperial War Museum Online Collections (<http://collections.iwm.org.uk>)

Headstamps and Markings on .303 inch British Service Ammunition – A.O Edwards (Solo Publications)

All un-attributed photos – Mark Khan