

# Russian Artillery

## Guns and Howitzers of the System of 1805

*Original research by Pete Perkins  
Article and drawings by Dave Perkins*

As I wargame exclusively with Russian troops, an interest in their equipment is only natural. Also, being a bit of a modeller I was not averse to expending a bit of effort in providing my XII Corps with "authentic" artillery.

An investigation of the available market showed that I wasn't going to be able to purchase any guns and hence the research.

My brother Pete, while living in London, discovered an excellent source of reliable information and expended a great deal of effort sketching, measuring and photographing for which I'm indeed grateful. (He models Prussians and has the same problem.)

These drawings are the results of our combined efforts, and may the wargaming Russophile never again be heard to mutter "But what did they look like", for now at least he can have a good idea.

### Historical Background

Under the direction of Count Arakcheev who had been appointed to head the Inspectorate of Artillery in 1802, that arm underwent a considerable reform.

One of the important changes that took place was the equipping of the Artillery with modern lightweight weapons designed for mobility. This new equipment was described as the "System of 1805" and originally consisted of the following guns and howitzers:

24 pdr gun	40 pdr "Unicorn" howitzer
18 pdr gun	20 pdr "Unicorn" howitzer
12 pdr gun	10 pdr "Unicorn" howitzer
6 pdr gun	3 pdr "Unicorn" howitzer

The new weapons were first employed during the Battle of Austerlitz after which action they were adversely commented on by some senior officers. Subsequent investigation uncovered defects in the organisation and use of the guns but could find no fault in the weapons themselves. The little 3 pdr howitzer was withdrawn after Friedland (1807) and production discontinued. It had been supplied as a battalion piece but with the separating of the artillery from the infantry it no longer had a use, being considered too light for the new batteries.

Some improvements were made after the introduction of the "System" and these are known to have been demonstrated to Fredrick William III of Prussia in 1808. After that date the design appears to have remained almost unchanged at least until the early 1840's.

### Field Artillery Organisation 1811-12

The basic unit was the Battery of which there were three principal types:

Heavy	240 men, 4 twelve pdr guns, 4 twenty pdr howitzers and 4 six pdr guns.
Light	160 men, 8 six pdr guns and 4 ten pdr howitzers.
Horse	160 men. 6 six pdr guns and 6 ten pdr howitzers

The batteries were divided into companies, probably by groups of like type of weapon within the battery. Also, the Russian artillery used drums to pass orders and each company had its quota of drummers.

In the foot artillery, the batteries were combined to form Brigades, each usually consisting of one heavy and two light batteries. It was common for each infantry division to have an artillery brigade attached to it when in the field.

The horse batteries were doled out singly, roughly one to each cavalry division.

In all there were 44 heavy, 58 light, 22 horse and 29 depot batteries of the Line plus the 8 batteries of the Guard.

So far no information has been uncovered concerning the makeup of the depot batteries or in what manner the siege train was manned and organized.

### **General Notes**

Some confusion exists concerning the shell and ball weights used to describe these weapons. This is not surprising considering the physical evidence available, the translation of documents and the elapse of time. Also, the use of projectile weight is an imprecise reference and should always be taken with a pinch of "Windage".

These notes and drawings have been carefully checked for accuracy against the source material, and the descriptions used were obtained from technically reliable references. However, neither my brother nor myself could be described as more than amateur military researchers and we would welcome further enlightenment on this subject.

### **The Unicorn Howitzer**

Sometimes referred to as "Licorne". This weapon originated in 1757. It derived its name from the decorative dolphins or lifting handles, and cascable that were shaped in the form of leaping unicorns for the handles and a unicorn's head for the cascable. These features appear in both early and later models but seem to have been omitted from the general issue of the "System 1805". Such expensive decorations were probably confined to special barrels at this time.

Originally the bore was "stepped" with a powder chamber of smaller diameter than the bore and a distinctly flared muzzle. By Napoleonic times the bore had become parallel with no flare at the muzzle but tapering to a cone shaped powder chamber.

The vent, or touch hole, was originally of the usual vertical type located on the breech reinforce, however it was later moved to the top face of the breech and angled into the powder chamber. The outside opening is shaped to provide a priming cup which feature became common on all Russian artillery.

Fixed, or made up, ammunition appears in a very early illustration of this weapon and consisted of both shell and canister. These "Unicorns" were fairly accurate at long range and must have been really deadly at short range.

### **Trunions** (on all Weapons)

Trunion positioning seems to vary with the period of manufacture, being found both below and on the barrel longitudinal centre. All of the drawings, except for the scrap view of the decorative Unicorn barrel, depict the trunions one diameter below centre. The shape of the trunions also varies. An illustration depicting Russian guns (and gunners) in the 1830's shows them originating in square section at the barrel and changing to round at the bearing point.

### Cascables (all Weapons)

In the drawings these are shown to be flattened on their upper and lower surfaces. This appears to be a peculiarity of the source material, as actual barrels show them to be full round and acorn shaped. I must discuss this with Pete next time I see him.

### Colouring

The woodwork for all artillery guns and vehicles was apple green and the iron fittings were blackened. Barrels were brass.

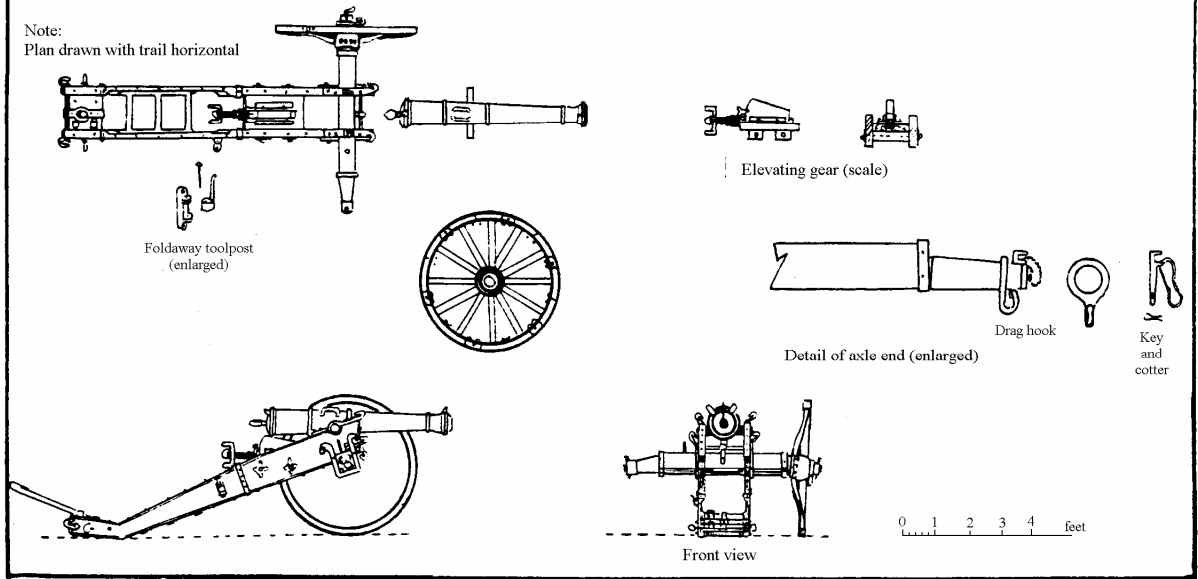
### Odds 'N Ends

Trail boxes for field guns were shown in the USSR movie "War and Peace". Whether this is accurate or not I do not know. It should be noted however that the cutaway inside the trail cheeks was provided to lighten the carriage and the transverse strapping on the 6 pdr was most likely for strengthening. The box on the light limber probably could have been used for ready-use ammunition while that on the medium limber was more likely used to stow spare harness and tools in.

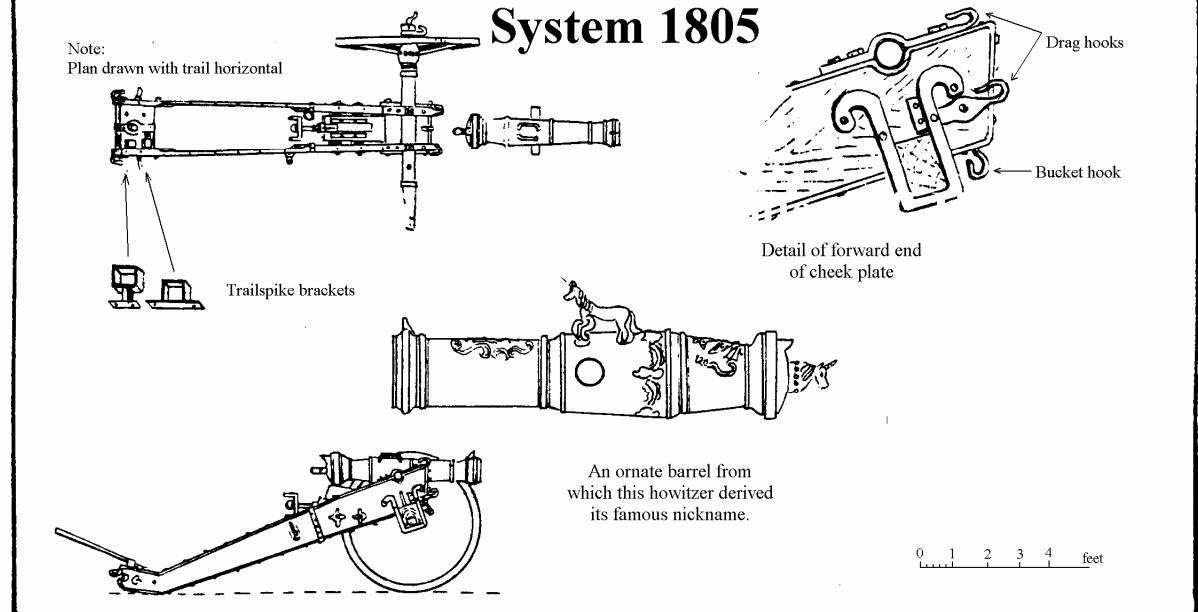
In Christopher Duffy's book "Borodino" there is a picture captioned "French troops abandoning Smolensk". A close examination however tells another tale. What is actually shown are Russian dragoons, or more likely, horse gunners, spiking a Russian 6 pdr (Darned if I know why?). The gun and limber are very interesting, as they appear to be a standard light limber and gun adapted to horse artillery requirements. The limber box is positioned transversely on the frame making it possible to be used as a seat. Also there is a step fitted on the outside of the left cheek of the gun which would indicate that a gunner could have sat on the trail using this object as a footrest. In between the cheeks is a what appears to be a padded object. A seat perhaps. All speculation of course, but the artist probably painted just what he saw and why not.

It should be noted that the small projection on top of the muzzles in the drawings is indeed a "sight". Apparently there was more to it than just a foresight but I have not been able to determine what. The system however was named after its inventor, Karbonov.

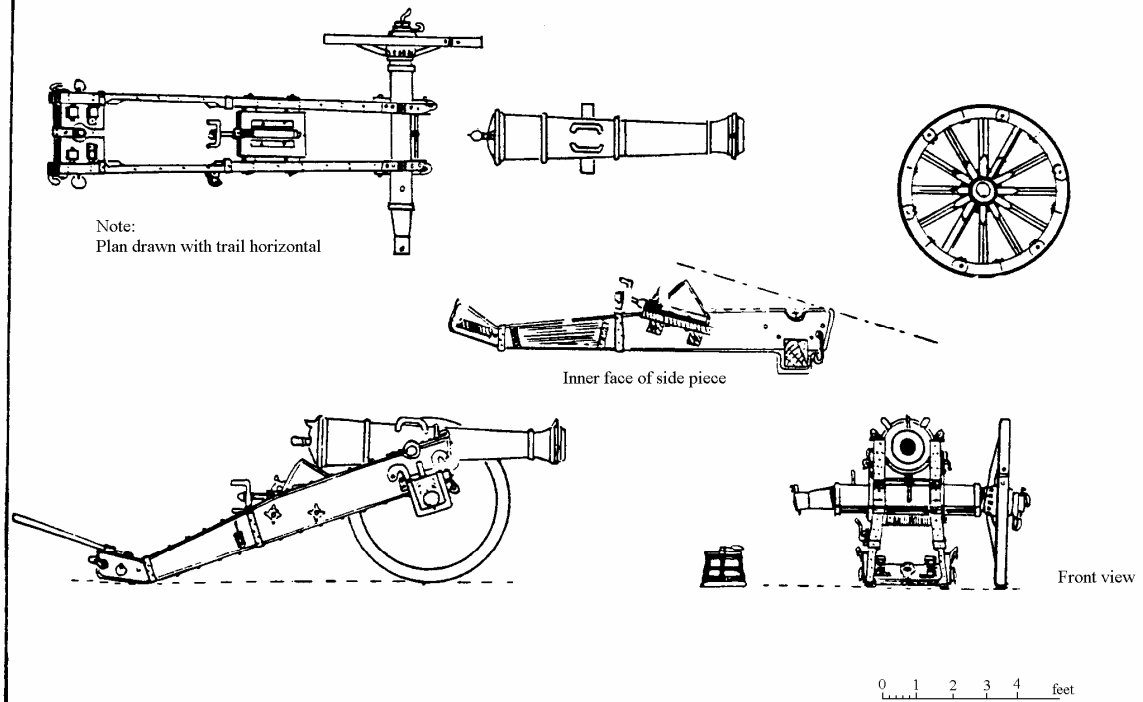
## Russian Artillery, 6 pdr Gun, System 1805



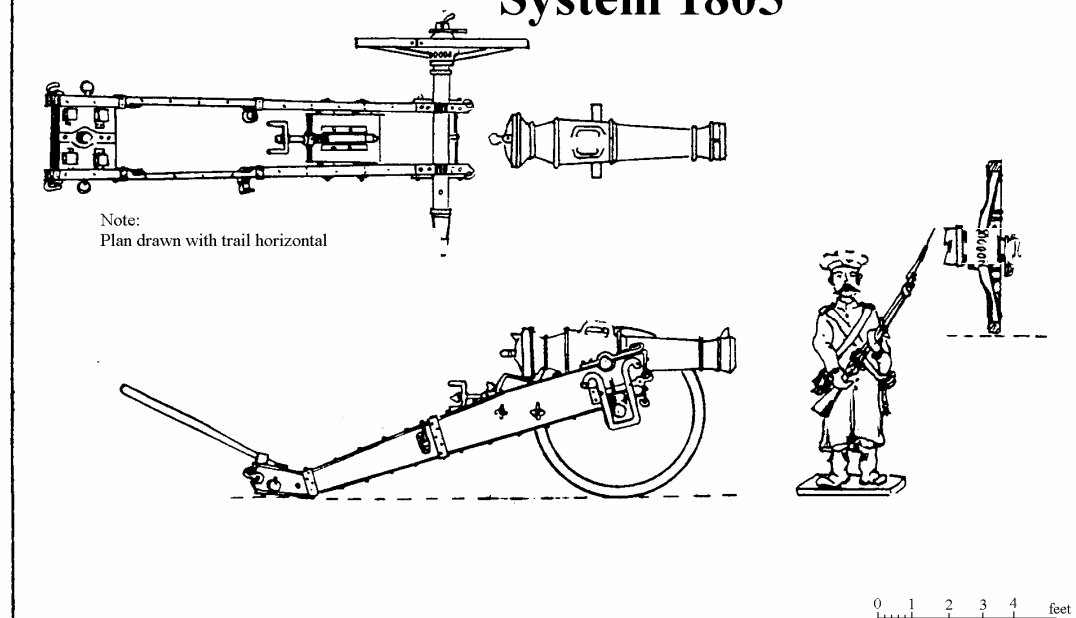
## Russian Artillery, 10pdr "Unicorn" Howitzer System 1805



## Russian Artillery, 12pdr Gun, System 1805

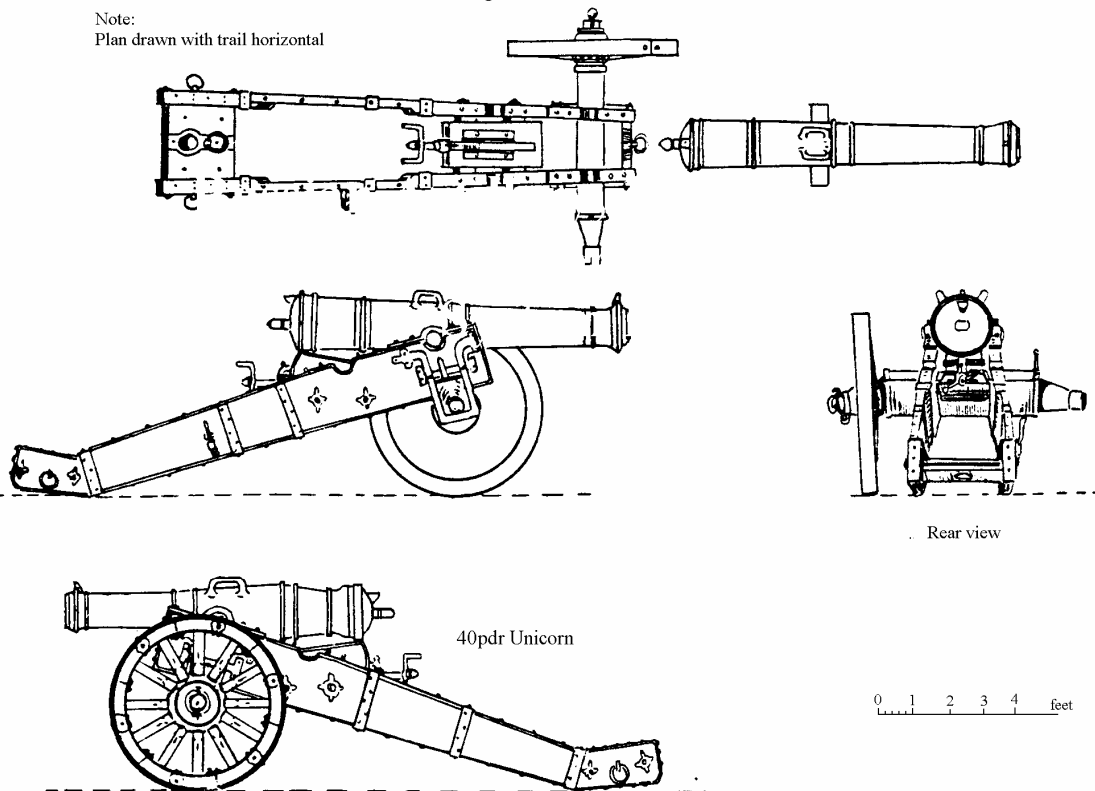


## Russian Artillery, 20pdr "Unicorn" Howitzer System 1805

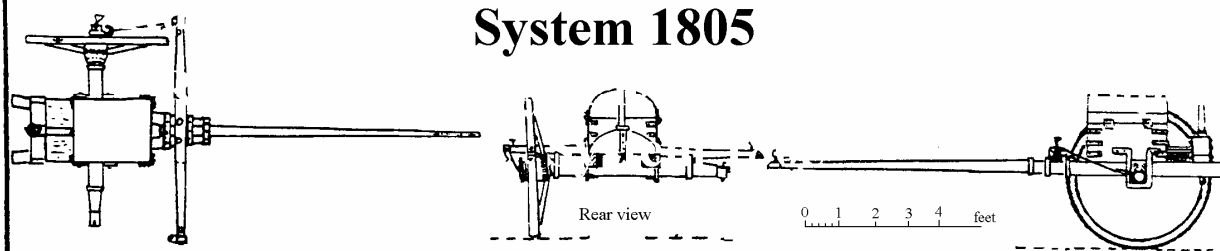


# Russian Artillery, 18pdr Gun and 40pdr "Unicorn" Howitzer System 1805

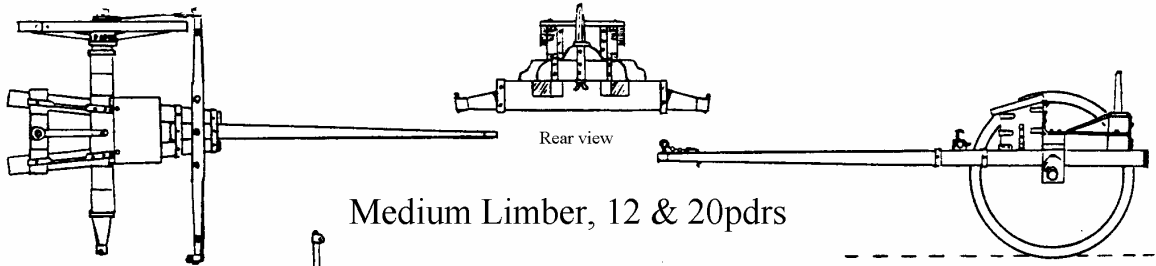
Note:  
Plan drawn with trail horizontal



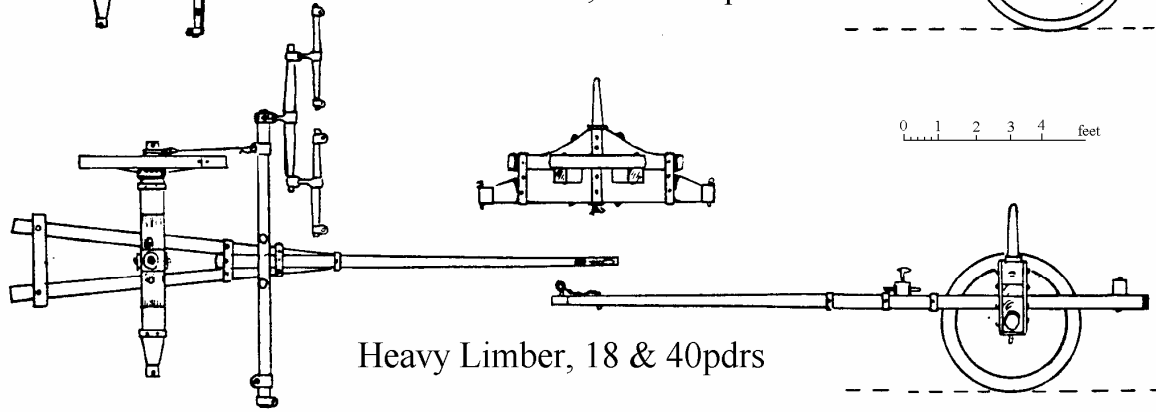
# Russian Artillery, Light Limber for 6 & 10pdr System 1805



# Russian Artillery, Limbers, System 1805



Medium Limber, 12 & 20pdrs



Heavy Limber, 18 & 40pdrs

0 1 2 3 4 feet