

How Our Soldiers Carry Their Ammunition

*Speed of Fire Means Lots of Cartridges—
Hence the Web Field Equipment*

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Full fighting equipment. Notice bandoleer showing under arm pita. This man has two hundred and twenty rounds of ammunition on him

AS the military rifle has improved step by step, it has become increasingly difficult to carry sufficient ammunition for it. In the days of the flint lock it was a much easier problem. The large powder horn and a bag of bullets would keep a soldier supplied for continual shooting for an indefinite length of time.

The greatest difficulty to be contended with in those days was that the raw recruit becoming excited would overload his piece which endangered himself and those around him and that he would waste the powder in loading by spilling more than he used upon the ground. In the heat of battle, he would sometimes load the bullet before the powder and temporarily put his musket out of commission.

All of these difficulties were, however, balanced by the fact that an ox-cart could carry all the powder and shot that a regiment could use in a couple of days of fighting.

There were several reasons for this: First, there were no cartridges used, the powder and balls were issued to the trooper and consequently they took up less room

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and weighed considerably less than the present cartridge with its heavy brass case. Secondly, the loading was so slow that the musket could not be loaded properly and fired with accuracy by the average soldier more than once, or possibly twice, in a minute.

The delay in loading, to some extent, had a good moral effect on the man's nerves. It stimulated cooler shooting and undoubtedly had a powerful effect upon the fighting ability of our forefathers. It was often a case of hit or be hit, because of the fact that a soldier was at the mercy of his opponent, if he missed with his one and only shot.

Following the flint lock came the muzzle loading percussion cap musket, which was used up to and through our Civil War. This was a step in advance because the piece was more dependable and was not as liable to miss fire if carelessly handled—the priming could not be shaken out of the pan or become wet in the rain as it would in the flint lock.

Also, about this time paper cartridges came into use. Powder and ball were made up in squibs of paper and forced down the muzzle together. It was a move toward rapidity of fire. It was quicker, less powder was wasted, and the charge was uniform in strength.

The British adapted such a cartridge some time prior to our use of it and when the great Sepoy Mutiny in 1857 threatened to destroy the Indian Empire, the leaders of the Mutiny used the British cartridge issued to the troops as an excuse for the insurrection and for raising the fanatical wrath of the people.

The British paper cartridge was sealed on the end with tallow and the troops were instructed, with the musket in position for loading, to bite off the tallow end of the cartridge and then place it in the muzzle and ram it home.

The instigator of the Revolution, Nanna, circulated the report among the Sepoy troops that the cartridges were sealed with the grease of pigs and that this was a devilishly designed British scheme to defile the Hindu soldier, to whom the flesh of the pig is unclean.

In the latter part of the Civil War, the metallic cartridge came into use through the advent of the Spencer carbine, which was used by the Federal Cavalry.

The lessons that the Indians were taught later, with this gun, in the West, are numerous.

Drawing the fire of their foes, the Indians would then charge, expecting

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Normal equipment. One hundred rounds of ammunition in web belt

to get at close quarters before the whites could load, with the result that they were beaten back with surprise and chagrin, when met by the rapid fire of the repeating rifle.

The medicine men told their warriors that the evil spirits were fighting on the side of the white men.

It was not long before the bolt action rifle came into use; this was used by the Germans in the Franco-Prussian War, called the needle gun. This rifle was soon superseded by the bolt action magazine rifle, of Mauser type.

The tendency, in improvements in firearms, has always been toward accuracy at long range, flatter trajectory, which is synonymous with higher power, and rapidity of fire.

Military experts have always been working for still greater rapidity of fire. The more rapid the fire the fewer men are needed to hold the enemy on a given section of front, or to beat down an attack.

This is called established superiority of fire and is the first object of both sides in an engagement, whether it is with artillery, machine guns, rifles, or the three combined.

With the 1903 Model Springfield rifle, twenty-five aimed shots can be fired per minute, using the magazine.

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and holding the magazine in reserve. Firing from the hip without aim, forty shots can be fired in one minute using magazine fire. The infantrymen carry 220 rounds of ammunition weighing twelve pounds, which, together with the rest of the necessary field equipment is all that a man can conveniently carry.

A comparison of the number of shots that can be fired a minute, to those carried, shows how quickly the immediately available ammunition supply can be exhausted when the troops are firing point blank into a column of advancing infantry, as the British, French, and American troops have done before Amiens.

Firing at the rate of twelve shots a minute, or one every five seconds, which any good average shot can do, aiming at a large mark, the ammunition carried would be exhausted in eighteen minutes.

General Anson Mills, of the United States Army, whose attention became attracted to the canvas belt idea, realized that if this form of extemporized ammunition carrier was developed along the correct lines it would become of decided benefit to the fighting man and vastly superior to the unpopular leather belt. The ordinary canvas is too susceptible to shrinkage and stretching according to the vagaries of the weather. Thereupon he produced a belt woven from end to end in a single piece, fitted with loops to receive the cartridges which were kept from dropping out by the rims and fitted so tightly as not to permit them slipping out inadvertently.

Tests with this belt conclusively established its ammunition advantages and as far back as 1880, it was adopted as the regulation equipment of the United States Army, and in its variously improved forms has constituted its service equipment ever since.

As greater rapidity of fire was gained, it became more necessary to increase the number of cartridges that were carried, which has been one of the chief factors in producing military cartridges of small caliber, shooting a light weight bullet which would consequently need less powder behind it to gain the desired energy. This combined to make the ammunition lighter and as a result, much more can be carried.

In the Spanish-American War, the American troops were using the old .45 caliber cartridge, which was a third again as heavy as the present .30 caliber, 1903 rimless cartridge.

As the caliber of the cartridge

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underwent these reductions in weight through successive improvements in both rifle and ammunition, it became practical to carry a greater amount of ammunition.

To meet this new development, a woven belt with a double row of loops, one on top of the other, was invented and in this way it was found possible to increase the soldier's supply of ammunition from forty to fifty rounds.

When the magazine rifle superseded the single shot rifle, woven belts were found to be of no further use because it was now found necessary to provide pockets to receive clipped cartridges and the Army immediately attacked the new problem and started to experiment with the woven pockets forming part of the belt. This presented many difficulties.

If the pockets were merely sewn to the belting, there was the ever present risk of the stitching giving way, in which event, of course, the contents would be lost, and the belts were subjected to the severest kind of handling by the troops in the field.

At last they succeeded in weaving the pockets and the belt in a single piece.

Upon the outbreak of the Boer War, the invention was introduced to the British Army which had been firmly wedded to the leather equipment. But due to the belts, which were made in England, being in many cases poorly woven, they were not entirely satisfactory and the invention failed somewhat to obtain the recognition which it deserved.

Finally recognizing the value of web equipment, a British company was formed in 1906 to manufacture web equipment in Great Britain, to operate closely with the patentees, to one common end.

The Mills idea is carried out to-day, in almost every article of the soldier's equipment, bayonet scabbards, canteen covers, shovel carriers, pick-mattick carriers, hand grenade carriers, first aid packets, pistol holsters. Many other special articles of equipment are made of webbing or canvas, taking the place of the more expensive but less durable leather which was used in both this country and in Great Britain.

Even the much-vaunted German military machine is provided with an inferior system, as events have conclusively proven. The web belt is immeasurably superior to the leather bandoleer, because it is not affected by prolonged rains nor lengthy spells of torrid weather, so that it is equally

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serviceable and efficient in any temperature.

The manufacture of web ammunition belts is one of the most intricate in the textile field. The belt is made almost entirely of cotton which is waterproof and will stand almost any amount of moisture and is immune to shrinkage and stretching. Its very much larger ammunition carrying capacity, in excess of the leather equipment, in combination with the fire control of the British Army has enabled it to perform a far more vital role in beating off the enemy than most people realize.

This was demonstrated very convincingly in the course of the open fighting in the early days of the war, particularly upon the occasion of the retreat from Mons. The large number of cartridges carried by the individual British soldier, coupled with the cheap cotton supplementary bandoleer system of renewing his supply of ammunition, served to a great degree to counterbalance the enormous superiority of the German troops in point of numbers.

The German's leather equipment provides 120 cartridges. At his belt in front there are two pouches each containing 45 rounds, while a reserve of 30 rounds is carried in his knapsack. This last feature is very weak, inasmuch as valuable time must be lost in securing this reserve at a critical moment.

The British soldier, on the other hand, carries 150 rounds in two sets of five—15 round carriers disposed in two tiers on either side, just above his belt, and a further 100 rounds is in the emergency bandoleer, which is likewise convenient to hand, being thrown across his chest.

Consequently, he has more than a two to one advantage over his adversary and he had never hesitated to drive this superiority home. To be true, the German rifle has not anything like as rapid fire as either the British or American arm, but this is merely another disadvantage to the soldier.

The American infantryman's belt has ten pockets holding two clips of 5 cartridges each, or 100 rounds of ammunition and in addition, when going into action, he carries two bandoleers containing sixty cartridges each or a total of 200 rounds. If necessary, three bandoleers can be carried.