Hands On Learning
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WARFARE & SOLDIERING H123/A

Sling Stone



A sling has a small cradle or pouch in the middle of two lengths of cord. The sling stone is placed in the pouch. Both cords are held in the hand, then the sling is swung and one of the two cords is released. This frees the projectile to fly in a straight line. It flies on a tangent to the circle that the pouch makes. The sling extends the human arm and allows the stone to be thrown much further than it was possible to shoot an arrow.

These sling stones are thought to have been found at Carthage, the North African state which fought (and was eventually defeated by) Rome. The Roman writer Vegetius, in his work *De Re Militari*, described the use of slings by Roman armies: 'Soldiers, notwithstanding their defensive armour, are often more annoyed by the round stones from the sling than by all the arrows of the enemy. Stones kill without mangling the body, and the contusion is mortal without loss of blood. It is universally known the ancients employed slingers in all their engagements. There is the greater reason for instructing all troops, without exception, in this exercise, as the sling cannot be reckoned any encumbrance, and often is of the greatest service, especially when they are obliged to engage in stony places, to defend a mountain or an eminence, or to repulse an enemy at the attack of a castle or city.'



Sling shot came in a number of shapes, the commonest being the acorn-shaped form, which were called *glandes* in Latin (meaning acorns). The picture on the left shows a slinger on Trajan's Column, Rome.

Lead Musket Bullet

Slings had a long range, but could not penetrate armour or flesh as effectively as an arrow. Arrows, on the other hand did not have the range of sling shot. A bullet fired from a gun combined the range of a sling with the penetrative power of an arrow

A musket is a gun which is loaded down the barrel. This kind of gun was widely used in Europe in the seventeenth and eighteenth centuries. Perhaps the most famous such gun was the Brown Bess, which used bullets like this one. The Brown Bess changed over the years, but the basic design was used by the British Empire's land forces from 1722 until 1838. This bullet was collected at Adrianople (modern name Edirne) on the border between Turkey and Greece. Several battles were fought there in the Bulgarian and Greek wars of independence.

Powder Flask



Muzzle-loading guns work by pouring gunpowder down the barrel and then the shot. When the trigger is pulled a flash is made which ignites the gunpowder and blasts the shot out of the barrel.

This powder flask would have been used to hold and measure out quantities of gunpowder to be used with a hunting rifle or handgun. It is made from a white metal which would have kept the powder dry and reduced the danger from sparks. The neck has a ratchet mechanism which allows the user to measure out four different quantities of powder, depending on the size and amount of lead shot to be loaded into the barrel. There is also a lever mechanism which can be pressed to open the flask and allow powder to be poured out.

To use the flask the hunter would hold the flask behind his or her back with the neck pointing downwards. The index finger was held over the neck and the thumb squeezed the spring to open the flask. A measured amount of powder then fell into the neck and was held in place by the index finger while the spring mechanism was allowed to close. The powder could then be poured into the barrel. It was important to make sure the flask was closed before bringing the flask in contact with the gun, to prevent a stray spark exploding the bulk of the powder.

This powder flask was made by G.& J.W. Hawksley - their name can be seen stamped on the neck. George and John William Hawksley, from Sheffield, made powder flasks, shot belts and brandy flasks. White's 1857 Directory for Derbyshire lists them as powder flask and shot belt manufacturers and the Sheffield Archives have salary books for the firm until 1957. This flask was one of many that they made, probably in the second half of the nineteenth century. The owners initials 'WTJ' have been engraved on the neck.



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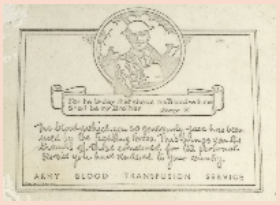
Chain Mail



Mail is a type of armour that consists of small metal rings linked together in a pattern to form a mesh. Mail can sometimes be punctured by a spear or shorn by the blow from a heavy axe or sword and its flexibility means that its wearer is still somewhat vulnerable to blunt weapons. Nevertheless, it was an effective and popular defence because of its ability to stop cutting weapons from piercing the skin.

Both Norman and Anglo-Saxon warriors used chain mail at the battle of Hastings. In the later Middle Ages chain mail gave way to plate mail. Due to the triangular points of the rivet heads, which hold the end of the rings in place, many armourers designed their mail with the pointed sides out. This created a very distinct 'inside' and 'outside'. Several patterns of linking the rings together have been known since ancient times, with the most common being the 1-to-4 pattern (where each ring is linked with four others). In Europe, the 1-to-4 pattern was dominant. This example has a 1-to-4 pattern, although it is said to be Berber in origin that is, from the people who inhabit Algeria and Morocco. Its date is unknown.

Blood Donors Card



The first successful transfusion of blood from one person to another took place in 1818. However the first transfusion from stored blood only took place in 1914. The new technique was used during the First World War, but was still very much an experimental procedure. The use of preserved blood was introduced into a casualty clearing station in the British Third Army during the battle of Cambrai in November 1917 by an American doctor Captain Oswald H. Robertson. Only group O blood was used. There was no difficulty in procuring blood donors. Up to the middle of 1918, the spirit of comradeship was sufficient to supply them. Later, a 3-week leave in England after the donation secured many offers from lightly wounded men. Dental patients and soldiers with minor injuries, sprains, and flat feet were also used as donors.

It is probable, however, that this card dates from World War Two. The British Army Blood Transfusion Service (BATS) was formed in 1938. The back of the card states that 'Your blood is now either dried and sent to the Middle East Force, or used for plasma store at home'. Dried plasma was developed and first used during World War Two.

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1914-15 Star



Medals are awarded by the army for bravery and good service. This medal, the 1914-15 Star, belongs to the second category. The 1914-15 Star was approved in 1918, for issue to officers and men of British and Imperial forces who served in any theatre of the War between 5 August 1914 and 31 December 1915. . The government issued approximately 2,366,000 1914-15 Star Medals. The back of the nmedal is inscribed with the recipient's number, rank and name Private W. C. Cousins of the King's Royal Rifle Corps. The ribbon has the red white and blue colours of the Empire.



Recipients of this medal also usually also received the British War Medal and Victory Medal. The set of three medals (left) were often sarcastically referred to as 'Pip, Squeak and Wilfred' who were three cartoon characters popular in a newspaper of the time.

Iron Cross



The iron cross medal dates from the First World War. The medal was established by King Frederick William III of Prussia and first awarded in 1813. The back of the medal bears Frederick William's initials and the date 1813 to comemorate this event. The front of the medal has the date 1914 and the initial letter 'W', standing for Kaiser Willhelm II, the last emperor of Germany. All such medals issued throughout the First World War bear the date 1914.

In the First World War, it is thought that approximately four million iron crosses of the lower grade (2nd Class) were issued, as well as around 145,000 of the higher grade (1st Class). The exact number is unknown as the records were destroyed. The two grades looked the same, but were worn in different ways to distinguish them. The first class medal was pinned to the tunic (left) while the second class medal, like this one, was suspended from a black ribbon with white stripes.



Early in the war iron crosses had a silver hallmark on the ribbon suspension ring. As the war progressed, and silver and iron became more scarce, silver plated trim around an alloy centre was used. Late in the war, solid brass, one-piece medals were cast.

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Phaelera

Phaelerae were small discs awarded as military decorations, usually worn by the centurion of the honoured unit attached to a leather chest harness. This example is a modern copy.



Women's Voluntary Service Badge



As war began to look imminent in 1938, the Home Secretary Sir Samuel Hoare came up with the idea of setting up a women's voluntary organisation to help in the event of air attacks. On 16 May 1938, the Women's Voluntary Service for Air Raid Precautions was founded. The Dowager Marchioness Lady Reading was appointed chairman. In 1956 the name of the organisation was changed to the Women's Royal Voluntary Service, by which it is still known today.

When war was declared on 3 September 1939, the WVS had a membership of 165,000 drawn from groups who for one reason or another couldn't 'join up' or do essential war work - including the old, the young, the housebound and those with dependents. The work of the WVS quickly diversified - new tasks included evacuating mothers and children from large cities to the country (they are credited with helping to move 1.5 million people, mainly children, out of cities in the early days of September 1939), staffing hostels and hospitals, sick bays and communal feeding centres, and collecting scrap metal to make into munitions. The photograph below shows WVS members from Reading proudly displaying some of the aluminium pans and jelly moulds that they have collected for this purpose. Their watchword was 'Never Say No'. 241 WVS members were killed by enemy action.



The women of the WVS were expected to buy their own uniform - a grey-green tweed suit, red jumper and felt hat with a red band. The lady in the front centre of the photograph is wearing a badge like this one on her hat.

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ICDS Badge



This is the uniform badge of the Industrial Civil Defence Service, an organisation which was founded in the late 1940s. In 1948 the government brought out a Civil Defence Act which led to the creation a number of civil defence organisations. There were several of these, such as the WVS, in the Second World War, but the aim of the act was to revise civil defence planning to take account of problems posed by the Cold War - nuclear, biological and chemical attack. A Civil Defence Corps was created as a result of this act - a non-combat organisation devoted to 'defence against any form of hostile attack by a foreign power or for depriving any form of attack by a foreign power of the whole or part of its effect.'

The Industrial Civil Defence Service was a similar organisation to the Civil Defence Corps, but separate from it. Every industrial or commercial undertaking which employed two hundred or more people could form a civil defence unit to protect its own property and staff. These units were organised in a similar way to the Civil Defence Corps, with Headquarters, Warden, Rescue, First Aid and Fire Guard Sections. The Fire Guard Section manned fire points and smaller fire appliances.

Although the Home Office considered the Civil Defence Corps as a war-only organisation, many thousands of volunteers used their training to effective use during peacetime emergencies. These included the East Coast floods of 1953, storms, train crashes and the Aberfan disaster of 1967. In 1968 the government reduced the spending on Civil Defence and disbanded the Civil Defence Corps, the Auxiliary Fire Service and the Industrial Civil Defence Service.

RAOC Plaque



This plaque is embossed with the badge of the Royal Army Ordnance Corps (RAOC), the name 'H. Pardy' and this soldier's service number. It is not known what it was for. Perhaps it was screwed to an office door.

Traditionally the role of the ROAC and its forbears has been the procurement, storage and issue of armaments, ammunition and similar equipment. Soldiers in this regiment were seldom involved in fighting - their role was more bureaucratic. The RAOC continued to serve the British Army until 1993, when it was amalgamated with other corps to become the Royal Logistics Corps.

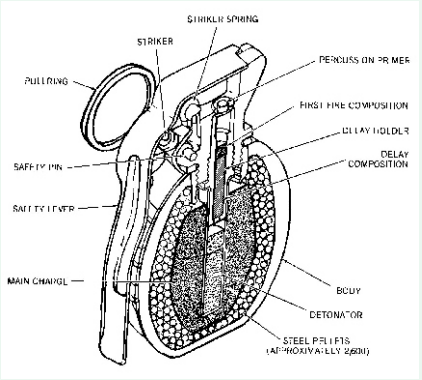
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Hand Grenade



This kind of hand grenade is known as a Mills bomb. It was invented by Sir William Mills for use in the First World War. The Mills bomb underwent numerous modifications in the course of its long life (they continued in use in the UK until the 1970s), although the basic design remained the same. This example is a number 36, first made in 1932, which has a detachable base so that it can be fired from a specially adapted rifle. This example is lacking its lever and pin (and explosive contents!).



The Mills grenade was a 'defensive' grenade if you threw it while attacking then you were likely to run into your own shrapnel. Detonators were carried separately from the bomb itself and had to be inserted through the hole in the top before use - see illustration, left. To use a grenade the soldier grips it firmly with his/her throwing hand, ensuring that the safety lever is firmly held in place. The safety ring is pulled out and the grenade is then thrown towards the target. This releases the safety lever which begins the process of detonation. This stage usually took four seconds, but grenades fired from rifles needed a delay of about seven seconds. If the delay is lengthy then the enemy may be able to grab the grenade and throw it back!

Many different kinds of Mills bomb were made. Some were made for use in specific conditions, for example in the moist tropics. Others were for practice purposes. This example has holes drilled in it and was not a lethal grenade. Usually the exact purpose could be identified by the grenade's colour unpainted, zinc-coated or white grenades were practice grenades of some kind, making a noise rather than explosion, while light green signified that it was a smoke grenade. This example was probably a smoke grenade.

This example was probably manufactured during World War Two. The case is stamped JPS which stands for Josiah Parkes and Sons, a lock manufacturer based at Willenhall in Staffordshire. In the Second World War the machinery of the company was put to essential munitions manufacture, notably grenades, fuses for shells and detonators. The base plate is stamped BBC, which stands for the British Bath Company of Greenford, west London. This company was founded in 1928 and during World War Two its skill in making cast iron baths was turned to more destructive purposes!

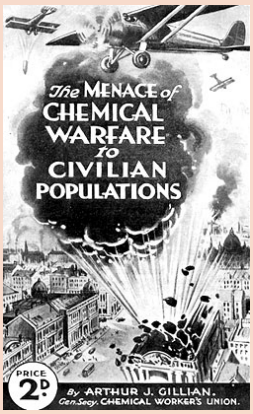
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Gas Mask & Booklet



Alarm about possible gas attack on civilian areas began in the First World War. Chlorine gas was first used by the German Army at Ypres on 22 April 1915. This caused great consternation, which was increased after London was bombed by a Zeppelin airship on 31 May 1915. Might the Germans use gas in future raids? Gas masks or respirators, as they were officially known were soon on sale to civilians.



During the 1930s, with the international political situation in turmoil, fears about another war approaching revived fears that civilians would be killed by poison gas. The British government's chemical research establishment at Porton Down produced a General Civilian Respirator (right) in 1936. Originally stored in sealed tins containing nitrogen, issue began during the Munich crisis of September 1938, when 35 million masks were distributed to the public. Once the crisis passed, the Government decided to allow the public to retain their masks for a trial period of six months, with regular inspections by wardens to ensure they were still serviceable.



The booklet was published in 1938, during this time heightened alarm. It gives a thorough introduction to the different kinds of gasses that might be used, how respirators work, how to wear them and so on.



The gas mask is a general service respirator Mk. V that is, it was intended for use by members of the armed services, rather than civilians. Service respirators are discussed on pages 38-47 of the booklet. Services respirators were more robust and effective than civilian equivalents. The tin canister at the end of the corrugated breathing tube contained charcoal which soaked up the poisons in the gas.

This mask is marked 'Lot 148F' and has a maker's stamp which reads 'L & B 10 40'. This indicates that it was made by the Leyland & Birmingham Rubber Co., Lancashire, probably in 1940.

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British Army Helmet



This kind of helmet is known as a Brodie helmet. It is named after its designer John L. Brodie, who patented it in 1915. Such helmets are pressed from a single thick sheet of steel, giving them added strength. The British Army first utilised the helmet in September of 1915 but it was not until the spring of 1916 that the helmet began to be issued to British troops in large numbers.



At the beginning of the Second World War these helmets were still the standard British Army helmet. The illustration on the left shows a sergeant from 1940 wearing one (along with a gas mask slung about his neck). The Brodie pattern continued to be used by the British and Commonwealth forces throughout most of World War Two. It was also used by the police, the fire brigade and ARP wardens.

By all accounts they were not very popular with troops. This was partly because they had an elastic strap which caused them to bounce up and down when running. For this reason they were sometimes known as 'boingy helmets'! The pin at the top, which held the liner in the helmet, was also prone to dig into the skull.



The helmet's soup-bowl shape was originally designed to protect the wearer's head and shoulders from shrapnel falling from above. However, the design offered less protection to the lower part of the head and neck. In 1944 the British Army introduced the Mk. III 'turtle helmet' (right), which was designed to give better protection for the side of the head than its predecessor.