

Weaponry of the Age of Sail:
The Pike, the Axe, and Tools as Weapons

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When one ship's crew boarded another ship in combat during the Age of Sail, sailors armed themselves with a variety of weapons, particularly if this sailor was a pirate or privateer. But in many cases, the pistol, cutlass, and even the musket were not available to the sailor, and all that was left were basic weapons, or even tools that he worked with everyday. While weapons like the cutlass, pistol, and musket seem to get the most attention when discussing naval weaponry, the pike, the axe, and other tools did have their uses in the arsenal of the sailors.

The Pike

Many weapons started out as tools. The spear was an early tool for prehistoric man to use in hunting. In Ancient times mass ranks of men (called phalanxes by the Greeks) used spears against the enemy. The spear evolved into the pike and maintained its main characteristics: keeping the enemy at a distance defensively and thrusting into the enemy offensively. In the 1300s, firearms were introduced and by the late 1500s to early 1600s became a strong part of the various armories of European armies. This marked the beginning of the end for major land use of pikes.

In the seventeenth century, pikes saw their last use in major armies in Europe and its colonies. A land pike at the time was fifteen to sixteen feet long and had three foot langets attaching it to the pike, and a cross guard to protect the user's hands.¹ The pikemen were teamed with musketeers to guard against cavalry. The pike was used to hit the horse and the rider. But improvements in firearms and use of the bayonet resulted in the decline of the large land pikes.² The ratio of pikemen to musketeers throughout the second half of the century fell in similar patterns throughout Europe. For example, in 1650 the Spanish ratio of pikemen to musketeers was 1 to 3, but by 1690 was 1 to 5.³ By 1700, most armies stopped using pikemen completely;

France by official order on December 16, 1699.⁴ The downfall of the pikemen as a part of military armies in Europe and its colonies led to the birth of modern infantry.

While pikes declined in use on land, the bayonet and improved firearms did not lead to their decline in use on ships. They maintained their role onboard ships throughout the Age of Sail. They were known by various names, the primary name being boarding pike but, they were also called pikes, lances, spears, or half pikes.⁵ The boarding pike was shorter than its land counterpart since ships were compact, full of ropes, and had many other obstructions that made it impossible to use a long land pike. The length of the boarding pike varied. British Ordinances in the eighteenth century made it standard for ships to carry three quarter (twelve feet long), and half pikes (eight feet long). Over time, most of the three quarter pikes were shortened to half-pikes, and by 1815, the standard length for all pikes was eight to nine feet.⁶ In France, a standard half-pike length was seven feet, six inches. Twelve-foot pikes were also found on French ships.⁷ Besides the length, the other main difference between pikes was their heads.

Two main types of heads were used on pikes during the Age of Sail, the pick and the leaf blade. The pick head was simply a metal point that was three or four sided and was great for thrusting and stabbing. The leaf blade was shaped like a leaf and was better for slashing with its sharpened sides, though it was good at thrusting and stabbing as well. Unlike its brother on land, the boarding pike did not usually have long langets, particularly after 1700.⁸ In England, they used both types of heads, but favored spiked heads in the early eighteenth century. These pikes were smaller, with a haft (the section between the actual spike and the part of the head attaching it to the handle) of around one inch in diameter. Later pikes were thicker on this part and the leaf-headed pike was used more often.⁹ The French around the time of the American Revolution standardized to using a leaf-shaped-head, but in 1786 adopted a four-sided spike head for its

pikes.¹⁰ The Americans made mostly plain-looking, leaf-headed pikes, as they were cheaper and easier to construct (even though they did make some spike-headed pikes), and they often did not include langets to save money.¹¹

Boarding pikes were mainly used defensively. When the enemy was trying to board, many times a wall of men with boarding pikes held back the enemy.¹² By the early eighteenth century, boarding nets were in major use at sea and were used in navies by the American Revolution.¹³ Boarding nets were hoisted around the ship, making climbing onto the deck rather difficult for boarders. Boarding nets were very helpful to sailors armed with pikes, for while the enemy tried to get through the netting, the defenders shot and stabbed at their adversaries through the netting.

The boarding pike, even if it was shorter than the pikes on land, still required much skill and ability to use it in combat. The pike holder had to be able to change his grip up and down the pike to try and keep the enemy at a distance or to thrust at the enemy.¹⁴ The common way a pike was held was using the right hand to hold the bottom part of the pike and the left hand to guide the top part. The main target for the men wielding the pike was an enemy's chest.¹⁵ If carried and used properly, the pike made a proper defense against boarders, or even a formidable offense when boarding.

When not being used, the pike was usually stored in the Gunner's locker, ready to be issued out when the call for battle came. They were issued out usually one to each gun to defend the gun port against attackers while the rest were bundled up and placed strategically on the quarterdeck, forecastle, and sometimes at the gangways. There were some exceptions though, when it came to storage, with some ships arranging pikes around masts or even small vessels strapping them to a boom.¹⁶

When stored away or when being used in training, pikes required some sort of protector over the tips. One such protector was a musket ball with a hole drilled into it and put over the tip with either a piece of line or leather strapping it to the pike.¹⁷ By the time of the American Revolution, the number of pikes onboard a ship was two pikes per gun.¹⁸ Many weapons during this period were put into ratio with the number of guns onboard ships, including boarding axes.

The Axe

The axe has been both a weapon and tool throughout much of history. Primitive man used the axe, or smaller and more basic variations thereof, as a tool and eventually as a weapon against others. Many early tribes and civilizations in Europe and Asia, and native groups in the Americas have all been depicted using some sort of axe as a weapon. The Vikings are notorious for their use of the axe. The Middle Ages was the last period that the axe was a major weapon in Europe, but it was still seen on the battlefield in various situations beyond this time. Eventually, the axe succumbed to weapons that did damage from a distance. The basic infantry of European armies standardized to fewer weapons, eventually to just the musket and bayonet. The axe remained a good weapon for close combat, but actual occurrences of close combat became fewer compared to earlier times. The combination of being a good close combat-weapon and a good tool is probably why the axe was still maintained on ships while it declined on land.

This tool and weapon went by various names, including boarding axe, pole-axe, battle axe, boarding hatchet, or tomahawk.¹⁹ The term boarding axe actually came into use during the 1600s, with the term pole-axe being the common name by the 1780s.²⁰ These rather sturdy and strongly built, sea service axes were different than the ones used on land; they were heftier than tomahawks, and had a pick opposite the blade end of the head.²¹ A very common length for a

boarding axe was twenty eight inches.²² While these axes were usually similar, there were some different variations from country to country.

Boarding axes of various countries usually had one or two aspects, no matter how small, that made them different from other countries. Some of the most unique boarding axes came from a place that many of the axe-wielding Vikings came from: Scandinavia. Their axes were usually rather large compared to other axes, one larger example being thirty eight inches long. The cutting edge of the blade was fully curved.²³ French boarding axes were similar to the Scandinavian axes, having a similar cutting edge that was not flat on top, but unlike the Scandinavian axes, the pick on the French axes was usually pointed downward.²⁴ English boarding axes had a flat top and a straight pick, were plain looking (due to the common style of the British to make weapons that were mainly meant to do work and not necessarily look nice), and were made sometimes without langets (especially in the American colonies). The British boarding axes were commonly referred to having heads shaped like a “pick-tomahawk” due to the resemblance to the ones used in trade with Native Americans.²⁵

American axes made during the late eighteenth and early nineteenth century had a unique design compared to European ones. Americans made axes that had teeth on the bottom part of the blade end of the head. They were not made to pull nails as myth tells it, but to improve the abilities of hauling ropes and climbing up over the ship’s side.²⁶ For civilian vessels, the axes were usually just unmarked versions of ones used in European navies. One thing that is commonly associated with boarding axes, particularly the British ones, is that some had spikes, pointing upward from the top of the head of the boarding axe. On ships, this spike made the jobs that the boarding ax was used for difficult and made it almost impossible for carrying on the belt. Axes were meant to be not just weapons, but tools, so they had to be made durable and

unhindered to do work. While pictures of the period show sailors, particularly pirates, carrying these types of axes, evidence has shown that the artists put them in for effect of the picture and not for accuracy.²⁷

The boarding axe usually had more work to do in a ship's upkeep and operation rather than against an opponent in combat. Top threats to a ship were fire, storms, and battles. When a ship was facing a fort, it was very common for the artillerymen on land to heat their shot. Ships of that period were made of dry wood and sails that easily caught on fire. The main way to get this heated shot loose from the wood was to use the pick end of the axe to pick the shot out and have it thrown over the side. In a storm or battle, it was common for the masses of sail and rigging to become entangled or for some of it to fall over the side. The only tool that could cut through a clutter of ropes with any speed was a boarding axe. If the ropes were to be moved, men took the ropes and strapped them around the under part of the axe and hauled them away.²⁸ The axe was a tool of much importance in ship activities, but could appear as a devilish weapon in combat.

When it came time for combat, the axe was a backup weapon, on about the same level as the pike. The axe was used to cut gaps in enemy masses when used by a boarding party.²⁹ Commonly, the axe was a weapon held in reserve for emergencies or for the defense of ships when weapons like cutlasses and pistols were not available at the moment a weapon was needed. Boat parties were issued axes, especially when trying to surprise an enemy without warning them with the use of firearms. In the French Navy, some men were given boarding axes to cut the lanyards that held the portholes open to enemy gun ports while in close action, making lifting the gun ports difficult.³⁰ The United States Navy, unlike most navies, even issued them out to men in

the first boarding parties.³¹ While boarding axes and pikes were both second line weapons, the next set of weapons available were un-issued ones, common tools used as weapons.

Tools

When someone is desperate enough, they will use anything they can get their hands on as weapons to fight against their opponent. Most people will try to find something that can cut, or stab, or is heavy enough to land a damaging blow. There were plenty of items aboard a ship in the Age of Sail that fit this description. One tool that the sailor of the period commonly carried with him was some form of knife. Work knives were meant specifically for dealing with ropes and other shipboard jobs and activities. Usually these were cutting knives rather than stabbing knives. A knife with a point for stabbing was more of a fighting knife, which made it more of a temptation for one sailor who had problems with others or bad intentions to use it on his comrades than one without. It was common amongst sailors, however, to have knives that did not have points.³² One exception to this was in the merchant service, particularly on those merchantmen that went to numerous foreign and exotic ports.³³ There were many looks to knives, probably more than can be recorded, but they had some common traits and styles.

Of all common styles among knives used in the Age of Sail, the folding knife was at the top. It was seen on both land and sea. It had a common length of five to six inches when fully drawn, with a single blade and sometimes pointed. The handle was a metal frame with wood, horn, or bone, which the blade folded into.³⁴ Another common style was the sheath knife. This very basic, old, and sturdy style was a simple piece of flat metal with a grip of wood or bone riveted to it, and a sheath that held the whole knife so as to keep it from falling out. The length of the single-blade knife overall would have been eight to nine inches, usually with a flat or rounded end (this made the knife good for scraping).³⁵ These knives were usually kept in

pockets, waistbands, belts, or on lanyards or pieces of string that could be worn around the neck. Knives were sometimes made from recycled sources. Old cutlasses sold off from navies could be easily made into excellent knives, fighting knives in particular. While the knife itself varied in form, the use of the knife did not.

If the knife was used in battle, it was only used as a last resort. If the knife were put up against anything other than another knife, the likelihood of the possessor of the knife winning was small. It took much skill to use a knife in a fight. Due to the fact that many of the work knives the sailors used were not pointed, they were barely usable in battle. One other possible use for a knife in battle might be to block blows like a buckler in fencing. The knife was more often used in mutinies and murders, but rarely in battle. The knife was not the best option, but if a sailor needed a quick weapon, he may have had no other choice.

The sailor desperately looking for a weapon had many other options around him in any ship of the period. The guns offered many tools of mayhem. Handspikes, used to adjust the position and elevate the gun into proper position, made excellent clubs. A swing of the rammer might knock an opponent out with a blow to the head. In the galley lay many knives and other cutlery. Machetes, a very common tool for land use (especially by buccaneers), were similar to the cutlass but had no guard. The belaying pin, used to secure ropes on the rails of ships, made very good clubs. The marlinspike, used to help take apart ropes with its point, was great for stabbing. Both the belaying pin and marlinspike were also weapons commonly used in mutinies. All these tools were normal to most ships, but there were some tools that made excellent weapons that were not on navy ships and most civilian ships.

The whalers carried many tools to work their trade, and these tools made excellent weapons. Before 1815, for the most part, whalers were armed with guns, small arms of all sorts,

and letters of marque.³⁶ After 1815 a general trend of disarmament began among civilian vessels, including the whalers. But there were still some threats to the whalers even after 1815, the rare pirate or native attack. When the worst did occur, the whalers did have an excellent set of tools to turn to combat when needed. The lance, for example, was used to kill the whale by plunging this twelve-foot-long tool deep into the whale to inflict a mortal wound.³⁷ The actual head of the lance was five to six feet long, and with the razor sharp, five-inch-long, leaf blade at its end, was enough to cut an important artery or organ to cause death in the whale.³⁸ This weapon made an excellent pike, with an advantage of cutting with efficiency.

Another set of tools used by the whalers was those in the carving and cutting up of the whales. The boarding knife was a prime example. Evolved over hundreds of years with the whalers, the boarding knife was used to cut through the huge amounts of blubber that brought aboard ship (or “boarded,” hence the nineteenth-century name “boarding knife”) and made into oil for period lamps, which made whaling such a significant profession to the world. This boarding knife had a double-edged razor sharp, 30-inch blade. It had a short staff that might include a cross handle to use it as a saw and a Turk’s-head knot to prevent hands from sliding off the handle.³⁹ Captains locked them up due to their deadliness if used by someone who knew how to use them. The spade, used to take apart the whale, came in various sizes and forms. They varied in length from six to twenty feet, with the flat-bladed head attached to the staff. In combat they were used as pikes, and its flat blade easily caused a killing blow or the loss of hands and fingers of opponents trying to come up over the side.⁴⁰ The whaler truly had a nasty armory of weapons to use against attacking enemies in its tools.

The sailor had many weapons when it came to the Age of Sail. While many think of pistols, cutlasses, and muskets when they think of a sailor's weapons, these were not always available. The sailor used any weapon he could get his hands on to fight an opponent, be it a pike, an axe, a knife, or any other tools that were available. All these weapons had their uses. Many of these last line weapons were defensive, but some were also offensive. While not some of the best weapons ever used in combat, when desperate times came in a fight, they were all the sailors had, and became weapons that a sailor would use to defend his ship, his fellow crewmembers, and his life.⁴¹

Notes

¹ William Gilkerson, *Boarders Away: With Steel – Edged Weapons & Polearms* (Lincoln, RI: Andrew Mowbray, 1991), 48, 49.

² A probable reason why pikes declined in the colonies, particularly Spanish ones, may be due to the buccaneer tactics made possible by improved firearms. The buccaneers used their very notorious buccaneering muskets, the *fusil boucanier*, with which they were very accurate shots because the majority were former hunters and many gained combat experience with them through surviving sometimes numerous previous battles. With this improvement in technology and their skills, the buccaneers picked off their enemies, including the pikemen, from a distance. Pikemen were almost useless due to this tactic.

³ Angus Konstam, *Pirates, Terror on the High Seas* (Oxford, UK: Osprey Publishing, 2001), 86.

⁴ René Chartrand, *Louis XIV's Army*, Men-at-Arms series (Oxford, UK: Osprey Publishing, 1988), 18.

⁵ Gilkerson, 48.

⁶ *Ibid.*, 56.

⁷ *Ibid.*, 57.

⁸ *Ibid.*, 49.

⁹ *Ibid.*, 58.

¹⁰ *Ibid.*, 57.

¹¹ *Ibid.*, 60, 61.

¹² Benerson Little, *The Sea Rover's Practice: Pirate Tactics and Techniques, 1630-1730* (Washington DC: Potomac Books, 2005), 71.

¹³ Gilkerson, 50.

¹⁴ Little, 71.

¹⁵ Gilkerson, 49.

¹⁶ *Ibid.*, 54. Two ships that arranged their pikes around their masts were the HMS *Victory* and the USS *Constitution*, and an example of strapping pikes to a boom was seen on a U.S. Schooner on Lake Ontario in 1813. It appears, though, that these ways of storing pikes were not common, due to the very few surviving documentations.

¹⁷ Ibid., 55, 56.

¹⁸ Ibid., 54.

¹⁹ Ibid., 25. The actual spelling of these names, especially tomahawk, had many spellings during the Age of Sail.

²⁰ Ibid., 25, 28.

²¹ Ibid., 25.

²² Ibid., 28.

²³ Ibid., 32.

²⁴ Ibid., 34.

²⁵ Ibid., 36.

²⁶ Ibid., 40.

²⁷ Ibid., 37.

²⁸ Ibid., 26.

²⁹ Little, 70.

³⁰ Gilkerson, 29.

³¹ Ibid., 27.

³² Ibid., 131.

³³ Ibid., The merchant service would be more lenient with men having knives because the merchant service did not have a lot of men confined to small spaces, unlike the Navy which required many men on each ship to operate the guns. The tension between the crew was less in the merchant service, so the sailors commonly were allowed to keep a good-sized fighting knife in their sea chests to defend against what might await them in ports around the world. Besides this exception, sailors were not allowed to carry any weapons in civilian or military ships except knives for work.

³⁴ Ibid., 130.

³⁵ Ibid.

³⁶ Ibid., 132. Whalers would carry cannon, small arms, and letters of marque to defend themselves against enemy ships, and to attack whalers of other countries, and was a common occurrence during war.

³⁷ The lance differed from the harpoon in that the harpoon's head was designed to stay in the whale's side (and then the whale ran, but the whalers were close behind because the boat was tied to a rope attached to the harpoon) and not to stab and inflict wounds directly like a lance.

³⁸ Ibid., 134.

³⁹ Ibid. The boarding knife used by whalers is not to be confused with the cutlasses turned into fighting knives, which were also named boarding knives.

⁴⁰ Ibid., 135.

⁴¹ Many thanks must be given to William Gilkerson, author of the book "Boarders Away" (listed in the Bibliography) for much of the information in this article. With the limited amount of resources available to me, his works have been a very valuable resource. Without his work, my job in finding information on this topic would have almost impossible.

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