Hand Tools - a Guide to Safe Use

Introduction

A large amount of practical conservation work, particularly that done by volunteers, is carried out with the use of hand tools. This guide illustrates a range of tools in common usage and correct techniques for using them safely.

It is essential that all people on conservation projects are shown how to use, carry and store these tools correctly before starting work. This not only encourages safe working practices but also makes the job easier to undertake. This guide will help by outlining the key technical and safety points.

Please remember that other factors affect how tools are used and these need to be taken into account. For example, the site conditions, terrain, weather, experience and attitudes of the participants all influence the ease and safety with which the work can be undertaken. A risk assessment must be conducted and certain aspects may need to be adapted to suit local circumstances.

All tool use has some level of risk, however safe it may seem; but observing the recommendations in this guide should help you to minimise the risk.

You must also ensure members of the public are adequately protected, both from tools in use and from their results, like falling branches or holes to trip in. Use signs warning of hazards and make sure you can detect people approaching closely and stop work until they are at a safe distance.

This document has been arranged to help cover the points that would usually be appropriate to include in a tools talk to train users in the safe use of tool. This training should cover the following points for each tool:

- **Name - including common alternatives.**
- **Use - the type of use the tool is designed for - and its limitations.**
- **Transportation - carrying technique if they are being carried by hand.**
- **Storage - how and where to store it safely.**
- **Safety checks - what aspects of the tool to check before use.**
- **Safe use - how to use it correctly including demonstration of techniques.**
- **Maintenance - only covered where simple maintenance can be done on site.**

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Clothing for Conservation Work

When using conservation tools it is best to wear clothes which are tough enough for the work and give adequate protection from vegetation, weather and harmful effects of the sun. Stout footwear, preferably steel toe-capped, should be worn - and must be worn when using certain tools, this is covered under the relevant tool sections. Although clothing should allow freedom of movement, it should not be loose and flapping or it could get snagged on tools or twigs.

Be careful to protect your head, eyes, face and back of the neck from the sun using sunglasses, hats and sun cream with SPF 30 or above which protects against UVA and UVB rays.

Other personal protective equipment (PPE) should also protect from injuries, dust and other harmful substances for example dust masks, goggles, hardhats and gloves.

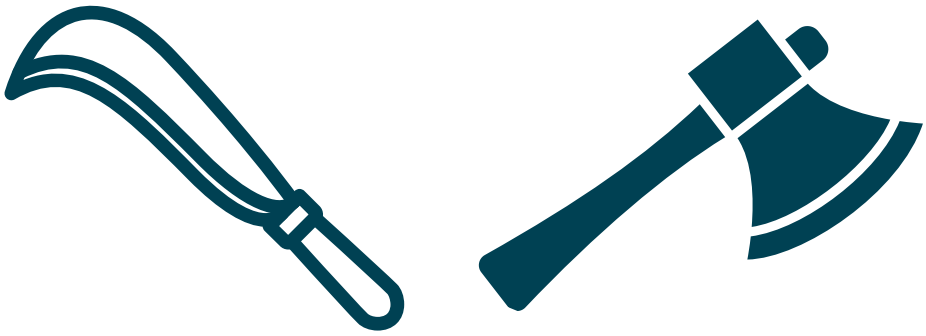
Protective gloves can be useful but should not generally be worn when using swinging tools as they reduce grip. However when clearing vegetation and there is a greater risk of cuts or allergic reaction to plant sap, gloves designed to increase grip may be used. In these cases, it is important to increase the safe working distance from other people.

Wearing long sleeved tops and long trousers tucked into socks helps avoid getting bitten by ticks, which can transmit Lyme disease and other serious tick-borne diseases. These host on many common animals, and can be found in most outdoor spaces where long grass and animals are present. Habitats such as woodlands, grasslands and moorlands are traditionally higher risk areas, particularly where deer or livestock graze. However, ticks can be found in urban parks and gardens and are present across the UK. Wearing light coloured clothing where possible helps spot and brush ticks off quickly, and carrying a tick removal tool is a good idea too. The Government have produced a tick awareness guide which is useful to share with your group:
www.gov.uk/government/publications/tick-bite-risks-and-prevention-of-lyme-disease



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Axes & Billhooks



Uses:

- Snedding, coppicing, hedgelaying, making stakes and traditionally tree felling. Tree felling using an axe is a skilled job and a bowsaw provides a quicker, safer alternative for the inexperienced to use. Personal instruction in using an axe or billhook is essential.

Transportation:

- Safest to carry them in a tool bag with the blades covered.
- If carried individually limit to one per hand, carry at your side by the handle and with the blade (if single bladed) facing the ground. Never swing it as you walk.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.

Safety checks:

- Check the general condition of the tool, if it looks damaged do not use.
- Make sure the handle is in good repair with no cracks or splinters that could injure hands.
- Ensure the blade and handle are secure; there should be no movement when trying to twist the blade whilst holding the handle.
- Ensure blade is free from damage and is sharp by looking along the blade. If there is extensive damage or it doesn't look sharp place to one side to be repaired or replaced. Blunt blades are dangerous as they can bounce off wood instead of cutting in and are tiring to use.
- Ensure blades are free from excessive rust.

Safe use:

- Keep a good grip on the haft (wooden handle). Never wear gloves unless they are specifically designed to improve grip and are in good condition.
- Use this tool in a safe work zone (twice the reach of the user and the tool) and if someone comes too close then stop working.

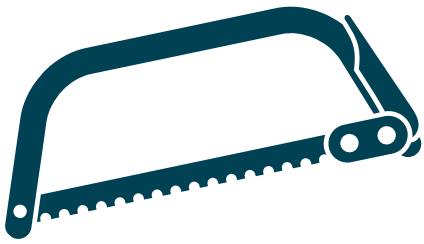
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- Avoid using it if it gets wet, dry handle before use and do not use if this isn't possible (e.g. in heavy rain)
- Never swing a double edged billhook directly towards your head.
- Clear vegetation (branches and twigs) around the area to be cut to avoid deflection.
- Wood over 5cm (2in) in diameter is better cut with an axe or saw.
- Work from a balanced position with good footing and sufficient clearance. Check your distance before starting and adjust it as necessary between blows.
- Swing the axe up and over your shoulder or lift it to the required height. As you swing it down let your right hand slide down to meet your left. Put effort into the beginning of the swing, but let it end with the momentum of the axe doing the work.
- Keep your eye on the target, not on the tool, as you work.
- If the tool gets jammed do not jerk it from side to side as you may break it. free it with a sharp blow downwards on the foot of the haft

Maintenance:

- Blades can be oiled to prevent rust and reduce sticking – vegetable oil works fine for this.
- Rust should be treated by cleaning off with wire wool.
- Blades should be sharpened using a file and finished with a wet stone - please see the TCV Tool care handbook

Bowsaws



Uses:

- Sawing woody vegetation such as when tree felling, scrub clearance, coppicing and cross-cutting felled timber. Often used for cutting branches that are too thick for loppers.

Transportation:

- In tool bags with blade sheaths on.
- If carried individually limit to one or two per hand, grip by the top of the bar with the blade covered and facing the ground.

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Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes. Do not hang on a branch or similar.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use. If the blade is bent or any teeth are missing or have lost their set, replace the blade, as a poorly maintained saw will make the work more hazardous.
- Ensure blade is taut - there shouldn't be more than 1-2 cm give from side to side.
- Over time the bar can bend inwards (closing the distance along the length of the blade) this can cause the blade to lose tension and become dangerous to use.
- Check the two points of anchor between the blade and the bar to ensure the blade is adequately secure.
- Ensure the handle is in good repair with no cracks.
- Ensure blades are sharp and free from excessive rust.

Safe use:

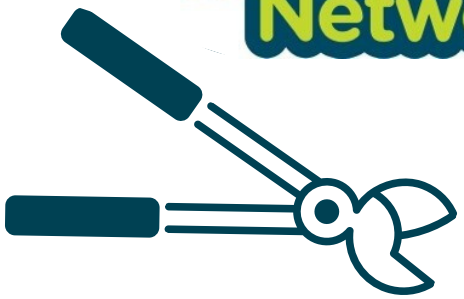
- Use the size of saw according to the size of timber you wish to cut, but use the smallest which can do the job effectively and efficiently.
- Wear gloves - this will protect the hand holding the saw from injury caused by scrapping knuckles against objects and the hand holding the vegetation from the blade – this hand must be covered with a good quality leather glove or other cut resistant glove.
- Always keep the hand holding the vegetation at least 30cm from the blade when sawing as the blade could jump out of the saw cut and cause injury.
- Push and pull the saw with one hand. When cutting large wood, rest the other hand lightly on the back of the frame to keep the blade in contact and aligned in the cut.
- Saw with easy relaxed strokes, using the full length of the blade. Use a rocking motion when cutting large timber. Let the blade do the work - don't force it, particularly if it sticks.
- Large bowsaws (91cm, 36in) are easier to use with a partner. Pull on alternate strokes. Do not push or the blade will jam.

Maintenance:

- Blades can be oiled to prevent rust and reduce sticking when sawing.
- Rust should be treated by cleaning off with wire wool.
- Either re-set or replace blunt blades. Blade teeth can be re-set with a saw setter.
- Saws should be cleaned of any mud or dirt before storing in tool store.
- Handles should be removed and replaced when cracked.

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Loppers



Uses:

- Used for pruning and cutting vegetation up to the thickness specified by the manufacturer. If the manufacturer's instructions are not available then as a rule of thumb loppers will cut woody material up to the size of their handles. Loppers are very safe tools and useful for those inexperienced with billhooks and bowsaws.

Transportation:

- If carried individually limit to one pair per hand, carry by your side and hold by one of the arms closest to the ground to keep tool mouth closed.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes. Do not hang on a branch or similar.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.
- Ensure blade is free from damage and is sharp. If there is extensive damage or is blunt place it to one side to be repaired or replaced.
- Ensure blades are free from excessive rust.

Safe use:

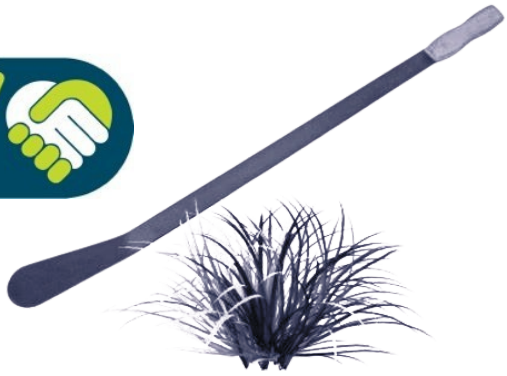
- Hold lopper handles and close them to cut across the grain of the wood. Snip in one smooth movement. Excessive pressure or wiggling the blade to cut through material is a sign that the material is beyond the safe cutting capacity and could result in damage to the tool or injury.
- Be careful of branches and debris falling. Do not cut material above head.

Maintenance:

- Blades can be oiled to prevent rust and reduce sticking when cutting.
- Rust should be treated by cleaning off with wire wool.
- Moving joints can be oiled.

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Slasher or Brushing Hook



Uses:

- Cutting light vegetation such as clearing brambles and cutting out large quantities of excess brash. For most work, the general purpose slasher is adequate, but for heavy work, a heavy duty or straight-bladed slasher is needed.

Transportation:

- Carried individually, limit to one per hand, carry by your side holding by the handle at the point of balance and with the blade (if single bladed) facing the ground.
- Keep a safe distance from others as you walk. If you trip, push the slasher away and let go.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.
- Make sure the handle is in good repair with no cracks or splinters that could injure hands.
- Ensure the blade and handle are secure; there should be no movement when trying to twist the blade whilst holding the handle.
- Ensure blade is free from damage and is sharp by looking along the blade. If there is extensive damage or it doesn't look sharp place to one side to be repaired or replaced. Blunt blades are more dangerous than sharp blades as extra effort is needed and the blade can bounce off vegetation instead of cutting into it.
- Ensure blades are free from excessive rust.

Safe use:

- Keep a good grip on the haft (wooden handle). Never wear gloves unless they are specifically designed to improve grip and are in good condition.
- Use this tool in a safe work zone (twice the reach of the user and the tool) and if someone comes too close then stop working.
- Avoid using it if it gets wet, dry handle before use and do not use if this isn't possible to maintain (e.g. in heavy rain)

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- Never swing a slasher directly towards your head.
- Always attract the attention of someone using a slasher by calling out or being seen from the front. Do not walk up to them while they are unaware of you.
- To cut light vegetation, hold the slasher with one hand at the heel (the other end of the handle from the blade) and the other hand part way along the handle.
- Swing the slasher through a wide arc, sliding one hand along to meet the other at the heel as you start to cut. Put the effort into starting the swing: the cutting should be done by the momentum you have created in the tool.
- Cutting can be improved by angling the blade upwards slightly; cutting with it angled downwards can cause the blade to hit the ground or stones and blunt it quickly.

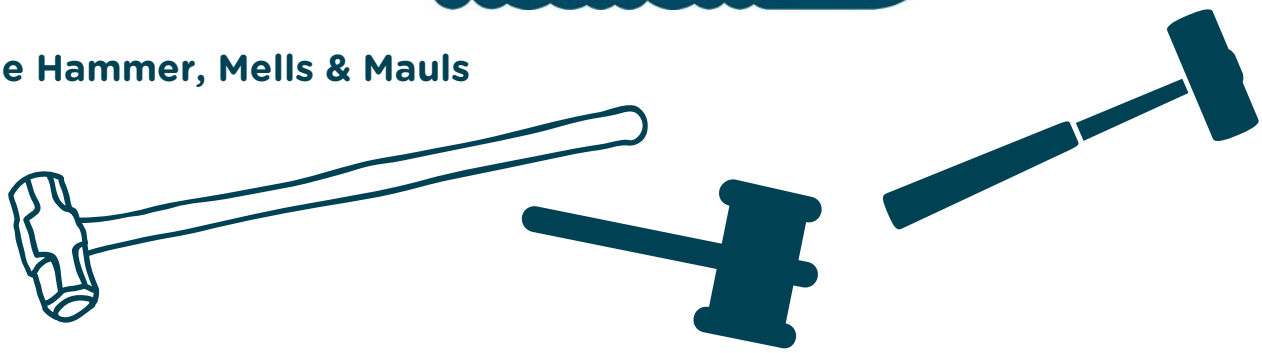


Maintenance:

- Blades can be oiled to prevent rust and reduce sticking – vegetable oil works fine for this.
- Rust should be treated by cleaning off with wire wool.
- Sharpen blades with files and wet stones.
- Handles can be treated with linseed oil to prolong life.

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Sledge Hammer, Mells & Mauls



Uses:

- Sledge hammers – steel heads used for heavy hammer work with stone, brickwork and steel stakes.
- Mells – iron heads used for driving in wooden stakes/posts. They must not be used on stone or metal as the head will shatter.
- Mauls – large rubber or wooden heads for wooden stakes/posts and sometimes used for firming paving slabs in place as they're less likely to damage the slabs.

Transportation:

- Carried individually, limit to one per hand, carry by your side holding by the handle near the head at the point of balance.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.

Safety checks:

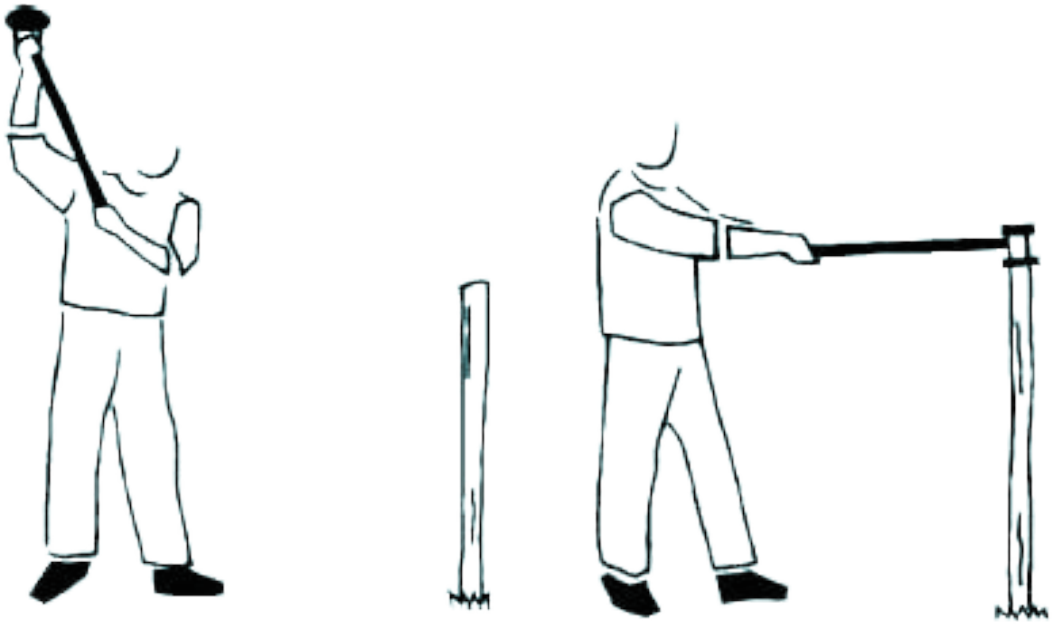
- Check the general condition of the tool, if it looks damaged in any way do not use.
- Make sure the handle is in good repair with no cracks or splinters that could injure hands.
- Check the head at regular intervals to ensure it is not working loose and that the metal/ wooden wedges securing the head are still in place.

Safe use:

- Make sure you have a firm footing and sufficient clearance and check your distance from the object you want to hit, maybe by a safe, slow-motion practice run.
- With one hand at the end of the shaft and the other near the head, lift the tool, bending the knees and keep your back straight. As you swing it down, slide the upper hand near the head down to meet the lower. Keep your eyes on the target.
- For mells and mauls, it is important to use the flat face of the tool head to strike the top of the post/ stake to avoid unnecessary splitting of these.

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- The only glove suitable for a swinging tool is a gripper glove in good condition, or wear no glove to ensure good grip and prevent the tool flying out of the user's hand.
- Use this tool in a safe work zone (twice the reach of the user and the tool) and if someone comes too close then stop working.
- Avoid using it if it gets wet, dry handle before use and do not use if this isn't possible to maintain (e.g. in heavy rain)
- Steel toe capped footwear must be worn due to weight of the tool.
- If someone is holding a post or stake being driven in then they must wear a hard hat and use a stob twister or iron bar to steady the post rather than holding by hand.
- Wear impact resistant goggles when breaking stone or hammering metal to protect eyes from flying chips.

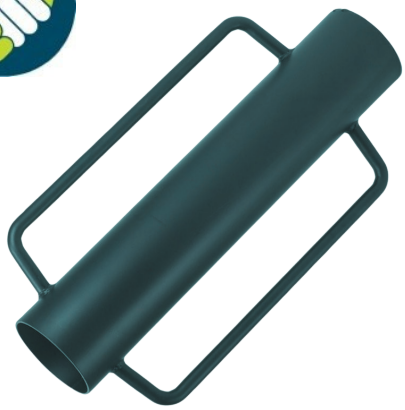


Maintenance:

- Handles can be treated with linseed oil to prolong life.
- Heads can be soaked in water to expand the wood – this is a temporary solution if there is slight movement.
- Handles can be replaced where there is movement between handle and head.

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Post Driver or Drivall



Uses:

- Two or four-handled hollow cylinders with a cast-iron weighted end, used for driving in wooden posts.

Transportation:

- These are heavy and so are most safely carried by wheel barrow or other lifting equipment or in a vehicle onto site.
- Where they are carried by hand do so by carrying it between two people side by side each holding a handle.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.
- Post drivers must be laid flat on the ground to avoid them falling onto peoples feet.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.
- Pay special attention to any welded joints to ensure there is no rust or signs of cracking.

Safe use:

- Always wear a safety helmet and steel toe capped boots.
- Do not support the post by hand when a post driver is being positioned over the post or being used to drive it in.
- When lifting or lowering the post driver, keep the back straight and bend the knees to use the strong thigh muscles.
- Care must be taken not to raise the post driver too high between strokes. This could lift the tool off the post and cause loss of balance and impact to the head.
- Beware: as the post is driven in, the post driver must be progressively raised a little less or it could come off the post and come down unpredictably, thus risking injury.
- Use a post driver only on sound, regularly-shaped posts.
- The post driver is a two person tool: don't use it alone. Work with a partner of similar height and strength.

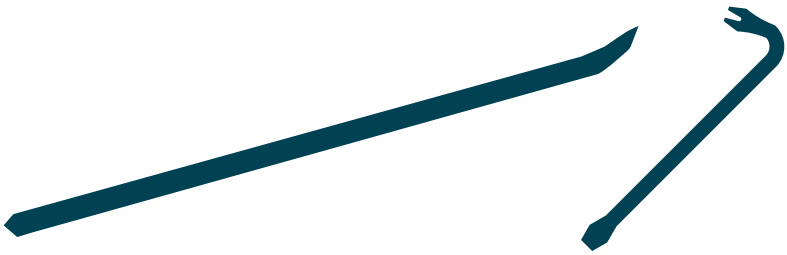
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- Agree the amount of lifts you will do before resting and count as you strike the post.
- Taking one handle each, maintain a firm stance and keep feet and legs clear of the post being driven. With the bottom of the post driver over but no higher than the top of the post, let it fall under its own weight thus driving the post into the ground, but do not let go of the handle as you must not rely on the post to support the post driver.
- To ensure the post goes in correctly and to reduce the effort required it is helpful to use a crowbar to create an initial drive hole.
- To reduce lifting problems, place the post driver on the post and then raise the post vertical into the pilot hole with the post driver on it.

Maintenance:

- Handles can be treated with linseed oil to prolong life.
- Heads can be soaked in water to expand the wood – this is a temporary solution if there is slight movement.
- Handles can be replaced where there is movement between handle and head.

Crowbar and wrecking bar



Uses:

- Levers for moving heavy objects and forcing things apart.
- Crowbars (also called pinch bars) can also be used to make post holes and break stone, and wrecking bars (also called jemmies or swan-necks) for pulling nails.

Transportation:

- If carried by hand hold in one hand at the point of balance, avoid swinging as you walk. Keep a safe distance from other people.

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Storage:

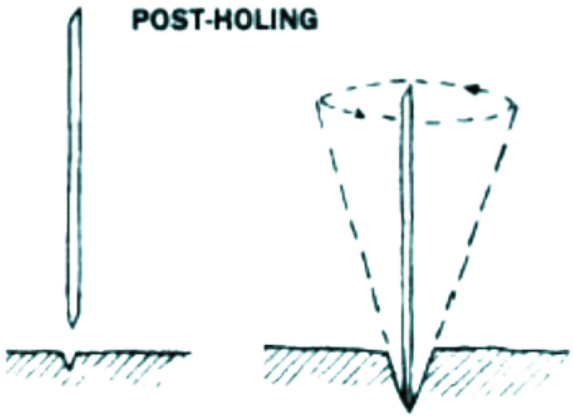
- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.
- Never store crowbars upright and sticking out of the ground as they can fall and cause injury.

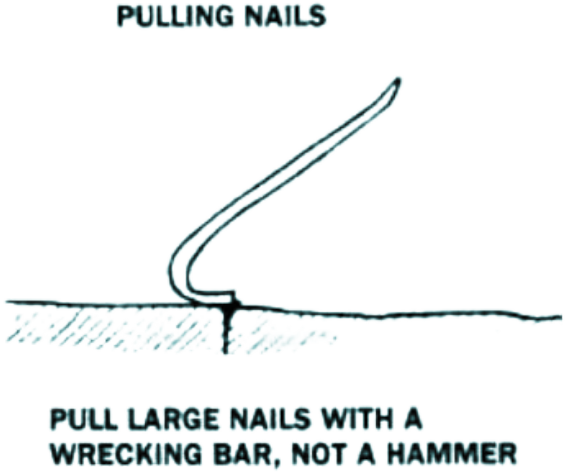
Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.

Safe use:

- When post-holing, ensure the ground has been checked for underground utilities e.g. electricity cables. Keep your head clear as you raise the crowbar.
- When levering with a crowbar, be sure you will not hurt yourself if you slip, or if the object moves suddenly.
- Wear steel toe-capped boots when using a crowbar.
- Be sure you have firm footing. When lifting, bend your knees and use your leg muscles, keeping your back straight to avoid straining it.
- When trying to lever large objects, place a suitable fulcrum such as a log or a stone as near as possible to the object to be moved (a distant fulcrum works poorly).
- Make sure the bar is placed under the centre of the object to be moved and over the centre of the fulcrum.





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Shuvholer



Uses:

- A large implement, consisting of two pointed and long-handled spades hinged together. The shuv-holer is indispensible for quickly making a deep narrow hole in most types of soil and does away with the discomfort of lying on the ground scooping out soil with your hands in muddy holes.

Transportation:

- If carried by hand hold in one hand at the point of balance by the handle closest to the ground (so the tool doesn't open up), avoid swinging as you walk. Keep a safe distance from other people.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.
- Pay particular attention to the moving parts which can wear away or sustain damage.

Safe use:

- When digging holes, ensure the ground has been checked for underground utilities e.g. electricity cables.
- Ensure your head is kept well clear of the handles particularly when closing the handles before lifting spoil out of the hole.
- The shuv-holer is used like large tongs in a pincer movement. With the spades apart by several inches, drive them into the hole and then bring the two handles together.
- Bending your knees and keeping your back straight at all times, lift out the soil caught between the spades. Remember the shuv-holer should not be used for driving holes in hard or stony ground, as the blades will become bent and damaged.
- In particularly stony or hard soil a rabbiting spade or crowbar can be used to loosen stone and soil and then the shuv-holer used to lift out the loose spoil.

Maintenance:

- Oil moving parts

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Spades, forks and shovels

Uses:

- Spades and forks are digging tools, forks also serving to loosen soil and prepare it for planting. Shovels are for designed for lifting and shifting material, not digging. They have a broader and thinner blade than spades that can be square faced or pointed.

Transportation:

- If carried by hand hold in one hand at the point of balance.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.
- During short breaks in use these tools can be left dug in the ground upright.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.
- Ensure the handle is not loose and both it and the shaft are free of splits or splinters.

Safe use:

- When digging holes, ensure the ground has been checked for underground utilities e.g. electricity cables.
- Wear strong appropriate footwear, preferably steel toe-capped boots.
- Position your feet carefully to avoid cutting them with spades or impaling them with forks, particularly on hard or stony ground.
- For spades & forks keep your weight over the tool to push down with maximum force.
- Use the ball of the foot; using the arch can damage your foot and using your toes or edge of your heel can result in slipping and scraping your shin or calve.
- Press with your foot: don't kick down on the spade/ fork or jump on it with both feet.
- Do not use a spade or fork to lever stones, etc. from the ground.
- For spades position yourself to avoid twisting around to lift and deposit material.
- Maintain firm footing and use your legs and arms to do the lifting, not your back.
- A large well-loaded shovel may have considerable weight: do not try to lift too much.
- When shovelling, work from as low a position as possible and lift keeping your back straight, to avoid straining it. To shift a pile of material, dig out from the bottom. Push the blade in, letting the material fall onto it. Then squat down to lift with your legs.

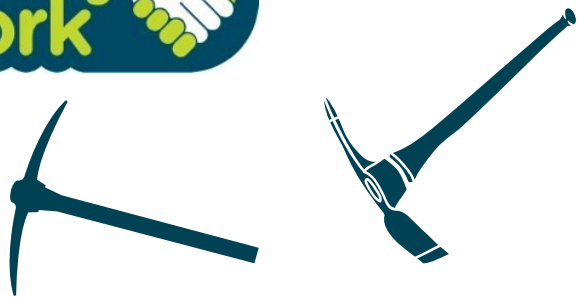
Maintenance:

- Oiling spades and shovels can reduce rusting.



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Picks and Mattocks



Uses:

- Picks are used to break up and loosen hard and stony ground, but should not be used to lever boulders or any great weight of compacted earth.
- Mattocks are of the same construction as picks, but the heads are made of softer steel which will bend if used on rocks. The broad blade of mattocks is used for grubbing and breaking up hard ground. The 'axe' blade of grubbing mattocks is useful for cutting roots. Mattocks should not be used as levers.

Transportation:

- Carried individually, limit to one per hand, carry by your side holding by the handle near the head at the point of balance.

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.
- Ensure that at all times the blade is secure on the handle and is not loose. The haft should stand proud of the top of the blade by approximately 3cm or the blade could be propelled off the end of the haft by the force generated when the tool is in use. If the head cannot be firmly fastened on the haft, the tool must not be used.
- Ensure the haft is in good repair and has no cracks or splits which could injure hands.

Safe use:

- Make sure you have a firm footing and sufficient clearance.
- Wear steel toe capped safety boots when using this tool.
- The only glove suitable for a swinging tool is a gripper glove in good condition, or wear no glove to ensure good grip and prevent the tool flying out of the user's hand.
- Use this tool in a safe work zone (twice the reach of the user and the tool) and if someone comes too close then stop working.
- Avoid using it if it gets wet, dry handle before use and do not use if this isn't possible to maintain (e.g. in heavy rain)
- Wear impact resistant goggles when breaking stone or hammering metal to protect eyes from flying chips.

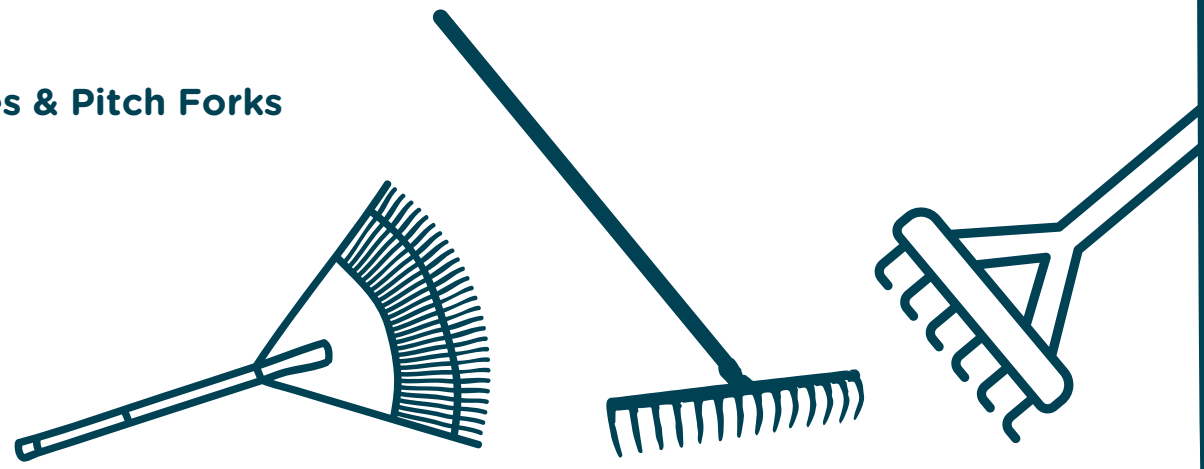
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- To construct the tool, place the narrowest part of the haft through the top (i.e. the widest part) of the blade and allow to drop through the head. Turn the tool round and with the blade top down, knock it firmly down on the haft by raising the tool and thumping the blade end of the haft hard on the ground several times. Take care not to drop the blade onto the fingers of your hand holding the haft.
- Hold the tool with one hand at the end of the haft and the other one near the head. Lift the tool, bending your knees and keeping your back straight. As you swing the tool down, slide your upper hand down to meet the lower.
- When grubbing or breaking ground, roll/ push the haft up and away from you over the point after digging in the point. Do not pull the haft towards you, as this could injure your back, particularly if done persistently.
- To disengage the tool: hold the blade in one hand and knock the bottom of the haft on hard ground while covering the blade end of the haft with your other hand until the blade works loose.

Maintenance:

- Handles can be treated with linseed oil to prolong life.

Rakes, Cromes & Pitch Forks



Uses:

- Garden rakes are lightweight general-purpose tools used for example to rake over bare ground, to break up the earth or remove small stones from the surface.
- Cromes, also known as muck rakes or manure drags, are mainly used to drag reeds and rubbish from ponds.
- Tarmac rakes are larger and stronger than garden rakes and are used to spread chippings and ballast on footpaths.
- Hay rakes are wooden tools, used to rake grass and other light vegetation.
- Springbok or spring tine rakes are used on lawns to comb out grass and rake leaves.
- Pitch forks or hay forks are used to lift light vegetation such as grass and bramble.

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Transportation:

- If carried by hand hold in one hand at the point of balance with the prongs pointing downwards and avoid swinging as you walk. Keep a safe distance from other people. If you trip, push the tool away from you

Storage:

- All tools should be neatly stored flat on the ground in a designated area when not in use away from the public and access routes.
- Always leave the prongs of rakes and cromes pointing down into the ground. If the prongs point upward someone might impale their foot or the handle might fly up.

Safety checks:

- Check the general condition of the tool, if it looks damaged in any way do not use.
- Check handles are in good repair, without splits or cracks which might injure hands and not polished smooth so that your grip might be reduced in the wet. Sand down the handle as necessary.

Safe use:

- Work from a balanced position and be careful of your footing, particularly in wet and muddy conditions.
- Use this tool in a safe work zone (twice the reach of the user and the tool) and if someone comes too close then stop working.
- Keep well clear of others, particularly in water where you can easily knock someone off balance. Watch behind yourself.
- All rakes are used with two hands. Stand at an angle to the material you are raking.
- When pulling material towards you keep your back straight and using your arms and legs to do the pulling.
- If you are using a pitch fork to lift a pile of brash keep your hands as far apart on the handle as possible. This will give you better leverage.
- Keep one hand near the end of the handle so you are less likely to hit someone behind you.



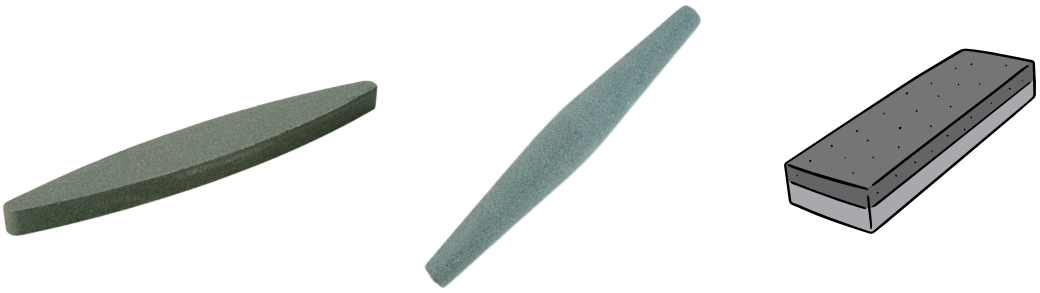
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Onsite Tool Sharpening

Sharpening stones:

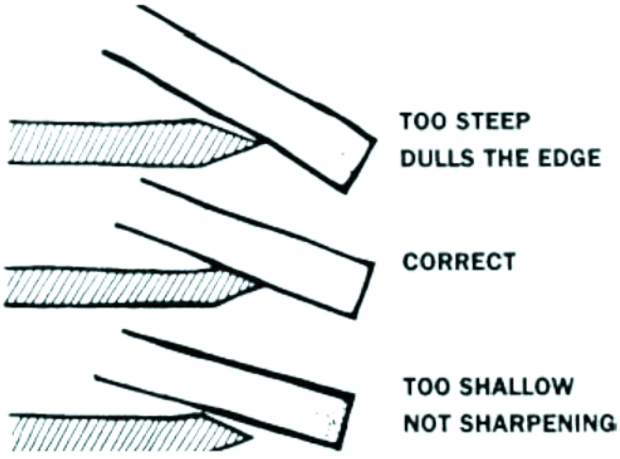
There are three major types (left to right):

- Canoe stone - for billhooks and slashers
- Cigar stone - somewhat coarser, for sickles and scythes
- Double-sided stones - for axes; coarse one side and fine the other.



Safe Use:

- The following guidance is for manually sharpening tools with stones. Use of bench grinders or other power tools to prepare/ maintain your hand tools will require consideration of aspects not covered here.
- Wear protective leather gloves when sharpening tools.
- Keep hands as far away from the blade as possible.
- Do not use broken stones as this forces hands to be very close to the blade.
- Work in a quiet place away from distractions.
- All stones are best used wet.
- Sharpen with small circular motions of the stone with the blade facing away from you working along the blade, avoiding sharpening one place for two long.
- Hold the stone at the same angle as that to which the blade has already been sharpened.
- Sharpen from behind the blade, not in front along the sharp edge.
- Note that many new sharp edged tools are supplied by manufacturers in need of final sharpening before use.
- Sharpening stones are only suitable for maintaining a sharp blade. If the blade has been damaged or is excessively blunt then use a file or bench grinder in a workshop.



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Glossary

ANCHOR - The fixed point to which a winch is attached, e.g. stakes driven into the ground or a stout tree, against which the pull of the winch is exerted.
BALLAST - Coarse stones etc used to form footpaths (used similarly in railways and roadworks).
BRASHING - The trimming of smaller, lower branches of trees, (up to 1.8m, 6ft, in height), as close to the stem as possible so as to avoid the formation of dead wood and to enable easier access.
COPPICING - The periodical cutting-down of trees to ground level in order to stimulate multiple shoot regrowth. Saws are best used on older trees and billhooks on younger, sappier trees.
CROSS CUTTING / LOGGING UP - Action of chopping up felled timber into shorter lengths, after snedding. Do not cross cut on steep slopes.
EDGED TOOLS - Also referred to as sharp-edged tools, either one or two-sided sharp bladed tools (e.g. billhooks and slashers).
FULCRUM - Point against which a lever is placed to get purchase and on which it turns and is supported.
GRUBBING - The action of derooting weeds, tree roots & brambles to prevent regrowth.
HAFT/ HANDLE/ SHAFT - Broadly interchangeable terms for the part of the tool which is gripped with the hands and upon which the axe head, slasher blade etc, attaches.
HEDGELAYING - Process of cutting part-way through a standing tree, then bending the stem toward the horizontal, then interweaving with other branches to form a barrier.
HEDGING - Creation, repair and maintenance of hedges.
HEEL - The other end of the tool's shaft from the end at which the tool's head is fastened. The heel may commonly be a little 'swollen' (of greater circumference) compared with the body of the shaft.
SCRUB CLEARANCE - Process of clearing areas of unproductive woodland dominated by shrubs, in order to promote wildlife diversity.
SLING - A length of cable or rope, normally with secure loops at each end to hook onto, used for attaching anchors or loads to be moved.
SNEDDING - Removal of branches from felled trees. Light axes and billhooks are best for removing smaller branches.
STOB TWISTER - A device, commonly metal but sometimes wood, about 75cm long. This is held at one end and grips a stob (a short post used in step construction) or fence post. It both keeps hands safely away from the post being driven and prevents the post twisting around.
THE TEMPER OF A BLADE - The elasticity and durability/ hardness of the metal.

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