

The Scout and his Axe

(with a few comments on saws)

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Editor's Note:

The reader is reminded that these texts have been written a long time ago. Consequently, they may use some terms or express sentiments which were current at the time, regardless of what we may think of them at the beginning of the 21st century. For reasons of historical accuracy they have been preserved in their original form.

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**THE SCOUT AND HIS AXE
(with a few comments on saws)**

I SUPPOSE there are few things more attractive to Scouts than the opportunity to use an axe; that is, attractive until something goes wrong and, because they have not learned to use an axe properly and how to care for it, someone has an accident and is hurt.

Axemanship has always been part of the Scout programme. The very first edition of *Scouting for Boys* mentions axe-manship and tree felling, and one of the first Scout Proficiency Badges was called "The Woodman" – rather a nice name: I wonder why it was changed. You might be interested to know that the test stated:

"Must fell a tree with felling axe, properly; know how to use a saw for felling big tree; know the different species of trees by their appearance, and their respective uses as timber; know a well grown tree (i.e., one useful for timber purposes) from a bad one; know the trade names and dimensions of planks, scantlings, etc., and how to measure timber; know the general principles of levering, hauling, stacking timber, and bark usual in the locality; sharpen axe on grindstone, and know how to use wedges."

Today axemanship appears in all sorts of places in our tests and perhaps it will be convenient if I list the conditions that a Scout is asked to fulfil according to today's book of rules:

SCOUT STANDARD: Explain how to use and care for a knife and axe. Use a knife to whittle a tent peg (or other object) from a piece of wood, and an axe to prepare wood for a fire.

ADVANCE SCOUT STANDARD: Know the safety rules of axemanship and how to care for a bush saw and felling axe. Use either for felling, trimming or logging up light timber.

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FORESTER BADGE: (1) Be able to identify in summer and in winter the following trees: Oak, Ash, Sycamore, Beech, Elm, Birch, Horse Chestnut, Lime, Plane, Field Maple, Spruce and Pine. Know how to identify any tree by reference to identification keys, etc.

2) Have a knowledge of tending of woods and plantations, the sequences of operations and the reason for these operations. Know some of the dangers to which woods may be exposed, i.e. frost, fire and animals.

3) Prepare soil and transplant a young tree.

4) Know how to select and use an axe, how to take care of it, and the safety rules of axemanship.

5) Know how to fell and trim out a tree.

Whenever I think or write about anything practical, concerned with camping and the outdoor world, I always look to see what that remarkable man Kephart said. Many years ago, in fact nearly fifty years ago, he wrote a wonderful book called "Camping and Woodcraft". This is what he says in that book about axemanship:

"Next to the rifle, a backwoodsman's main reliance is on his axe. With these two instruments, and little else, our pioneers attacked the forest wilderness that once covered all eastern America, and won it for civilisation."

He then goes on to say that for the average pioneer backwoodsman the favourite axe is a double-bit, but I have to say that the double-bitted axe is a very unsuitable tool for a Scout and, indeed, I would say that it is even more unsuitable for most Scouters whom I know! However, you might like to know the purpose of a double-bitted axe and it may be that when you become really proficient with safer types of axe the time will come when you can use an axe of this kind to good purpose without danger to yourself or others.

I wonder if any of you are as ignorant about double-bitted axes as I once was? I don't know where the idea started but someone must have told me that it was used for cutting down two trees simultaneously! I can remember many years ago trying to do just that, and a very tiring and unsatisfactory business I found it. I think the trees are still standing, bruised but not destroyed.

There are two basic reasons for a double-bitted axe. The first is that for the expert it is the best balanced axe and, when you think of it, this must be so. The second, not very obvious reason, is that you have one blade ground thin, for felling, and the other blade is left with much more bevel on the cheeks so that the edge, although it is kept sharp, is quite narrow and makes a wonderful tool for splitting or – something that had not occurred to me but Kephart mentioned it – it is a great safeguard if you are cutting knotted wood or cutting roots and the blade is liable to go through the root and into the earth. Kephart goes on to say that "A double-bitted axe is dangerous in any but expert hands; more so than a loaded gun" and it would be a menace lying around in camp or even when stuck in a chopping block as one edge is always exposed. So for camping and for Scouting a double-bitted axe is out.

I have written first about the double-bitted axe simply because I think that when we start on any activity it is good to have an ultimate aim and I believe that the aim for a trained, skilled axeman should be that one day he will master and use an axe of this kind.

This brings me to the single-bitted axe of which there are many varieties, and I shall not be able to describe them all: I have simply taken a selection of axes with which I am familiar and tried to advise you concerning them. So let us move straight away to the hand-axe.

Nowadays there are two main types of hand-axe that I can commend to you.

First, there is the traditional pattern which is really a felling axe in miniature. It has a steel head and a wooden haft.

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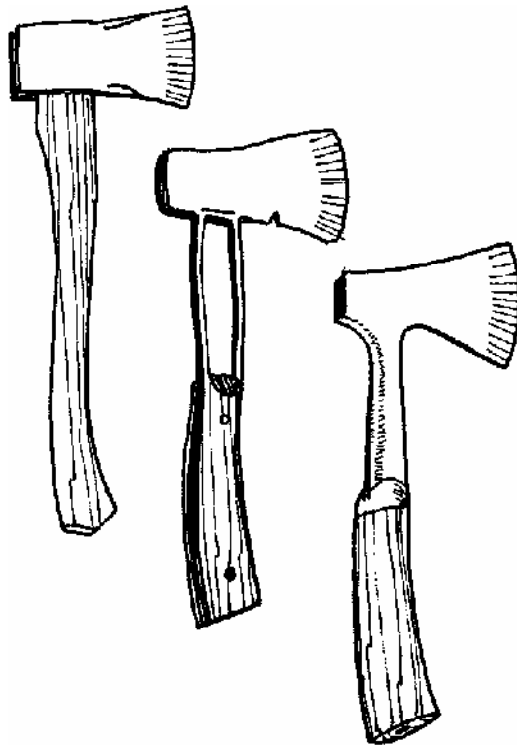
Second, there is the modern all-steel type which many old-stagers do not like merely because it is different, and I must confess that I find the wooden haft type more attractive and more romantic, although in fairness I must say that there is no doubt that the all-metal axe made in one piece, haft and head, is a very good tool indeed.

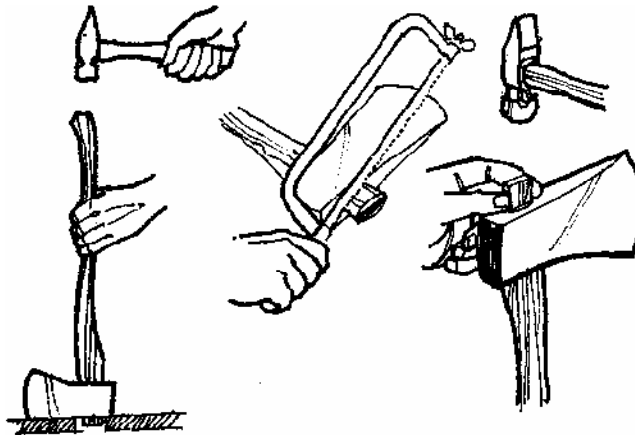
Whilst for the young Scout it tends to be a little heavy, for the thirteen- or fourteen-year-old and upwards it presents no problem, so let us consider the advantages of this new type of axe.

Because the haft and head are in one piece the haft cannot come off, which is the most frequent defect of the traditional type of hand-axe. The part of the haft you actually hold is usually protected in some way so that you are not gripping bare steel. Sometimes two pieces of wood are bolted on, one on each side of the flattened haft, or a wooden or plastic grip is fixed right round the haft. Both methods are perfectly satisfactory. Provided that the bit is kept sharp (and that is true of any axe) there is nothing that can go wrong with a tool like this, and so for Troop use it should have a very long life and it is no more expensive than the traditional pattern.

Ideally, I think every Troop should have a few of each type of axe because we all ought to be familiar with as many kinds as possible. Best of all is one of each for every Patrol.

The Americans in recent years have devised a splendid way of fixing the head to the haft; a method they call "bonding". This is far more effective than the old method of using a hard wood wedge driven into a cut in the end of the haft. Wedges tend to become loose and they are not very easy to retighten. Small metal wedges driven in at right angles across the main wedge help, but these will eventually work loose and all too often do so.





There is a slight snag about the bonded finish. If the haft is broken then it is very much harder to remove the piece that is still in the head. There is, of course, a proper way to do it and this applies to any wooden haft when it is broken and has to be removed. The obvious way is to burn it out, but if you put the whole of the head of the axe, including the broken haft, into a fire you will ruin the temper of the steel and make the axe worthless, but if you carefully bury as much of the head as possible in earth, leaving only the hole in the head and the broken haft above ground you can then light a fire over the exposed part and burn out the broken piece without running any risk of damaging the part of the axe that is going to do the cutting.

You may have to use this burning method if you are in camp, although camp is not the ideal place to re-haft an axe. If it can wait until you get back to your headquarters or to a workshop then it will be easy to drill the broken haft out of the head, using a brace and appropriate bit. Incidentally, I hope that for this kind of work and for many other types you have access to a good, solid vice.

Because I have always found the re-hafting of an axe a difficult job to do in camp I think it pays in regard to this item of equipment to make extra provision. If you are short of tent pegs you can improvise and if a tent pole snaps you can do something about it, but life in camp without a serviceable axe can be very unsatisfactory. Particularly if there are young Scouts in the Troop I think the Patrol Leaders and Scouters ought to resolve to take at least 50 per cent more axes than they think they will need.

Types of Axe

Different countries have developed different shapes of axe head for different types of timber and, indeed, there are different weights of head, but in general a good axe properly handled will fell any type of timber that you are likely to come across. However, I have included some drawings of different shapes. Some have been designed for hard deciduous woods and some for the softer conifers. The advantage of a special axe for conifers is that it will enable you to fell the tree more quickly, though not necessarily any better.

Choosing an Axe

Whatever the type of axe you buy, first and foremost I would say "Get the most expensive axe you can afford". Cheap tools are usually cheap because they are not very good and are often made of inferior metals. Secondly I would say "Make sure that the head is really firmly fixed to the haft". If there is any movement at all reject the axe immediately. Don't listen to people who tell you that "You can soak it in water" or "If you oil it the haft will swell and become tight". When you are buying an axe make sure that you start with a good tool which is ready for use. Thirdly, make sure that the head is properly fixed in line with the haft. Unless it is an American axe (and I say this advisedly because I have never known it to arise with an American axe) be suspicious if the haft is painted. There are really only two sorts of timber suitable for axe hafts.

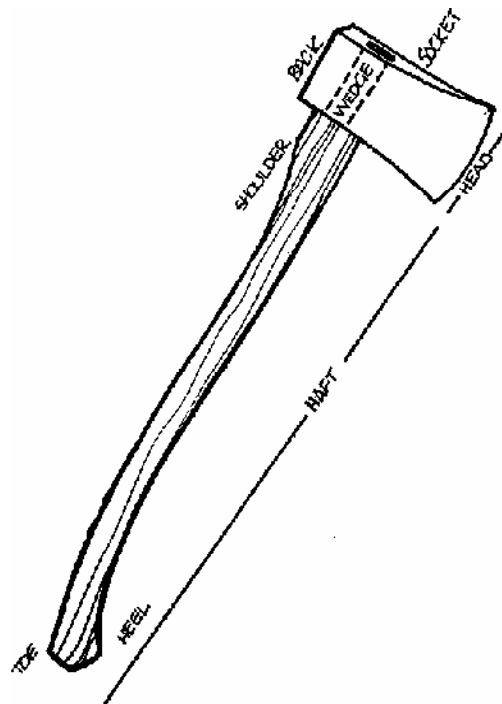
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First and foremost is hickory, which does not grow in this country and therefore has to be imported. It is a North American timber and is used almost exclusively for axes in the U.S.A. and Canada, but nowadays a high proportion of axes made in the United Kingdom will have hickory hafts. The only suitable wood which grows in this country is ash, and this is a perfectly sound wood although not quite so satisfactory as hickory. A good hand-axe from a reputable firm will usually show quite openly what timber has been used for the haft but if it does not then ask or, best of all, learn to identify hickory and ash by their appearance.

It is very important that the haft should be close-grained, straight-grained, and free from knots. Knots in a haft can be dangerous and if the haft has been painted over you may not discover these defects until you have an accident and the haft breaks in your hand.

Avoid having the axe head too heavy. Remember that you have to use the tool and if you tire quickly because the weight is too great it becomes a dangerous weapon.

Some axes are made with a notch on the under side of the head, which I do not recommend because it gives the idea – which is a bad idea – that the axe can be used as a general utility tool, for pulling out nails, etc., and that leads to the idea that it can be used for knocking in nails. A general purpose tool is not a good one: an axe should be used for cutting wood and for nothing else.



Right from the start, from the very first day you handle an axe, learn to respect it for what it is and for what it can do when properly used. Never ill-treat it or use it for knocking in nails or tent pegs or for anything other than chopping or cutting timber. I am reminded of this because a good friend of mine has just presented an axe to me – an ordinary hand-axe of the type I have been talking about – which he purchased at Gilwell Park in 1921. He has been an active Scout all his life and he must have used the axe hundreds and perhaps thousands of times. Forty years later it is still a good axe. It was the best available at the time (and it cost no less than three shillings!) and it has been very well cared for. I would say that it is good for another forty years if it has similar treatment, as I hope it will.

This leads on to:

Care of the Axe

Keep the head greased when not in use and keep it masked, either in leather, which is attractive but expensive, or in sacking, which is not attractive but is perfectly effective.

Train yourself always to sharpen your axe before you put it away. (We will come back later to methods of sharpening.)

Keep the haft oiled, preferably with raw linseed oil, and note that it must be raw linseed oil and not boiled. Some people prefer a mixture of oil and grease but either will do. Don't put too much oil on or it will become slippery and sticky. The important part to keep oiled is the area between where you hold the axe and where the haft enters the head. There is no need and little pleasure in having a "sticky grip".

THE SAFETY RULES

First and foremost remember this: –

The Scout in possession of the tool is responsible

When using a hand-axe always chop downwards and away from your own body.

Aim to chop where the stick you are chopping is directly supported by the chopping block.

Never chop on to or into the ground.

Keep spectators in front of you and at least six feet away.

Never throw an axe.

Never leave an axe lying on the ground or propped against a log or tree.

Mask the axe when it is not in use.

If the head becomes loose stop at once.

If you become tired stop at once.

Learn to aim at a particular point on the stick or log you are cutting and do not be content merely to hit the log.

Keep your eye on the place you are trying to hit.

Keep calm.

Do not become over-confident or careless.

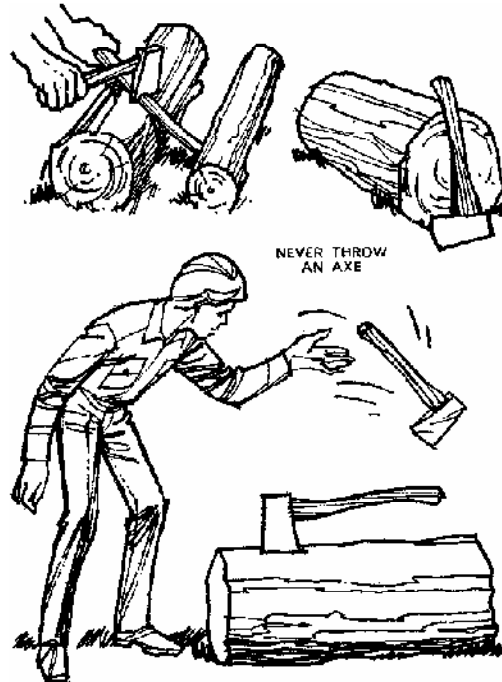
Do try to remember to wear shoes of a walking variety when you are going to use an axe. This really will prove to be a protection.

If you are wearing a lanyard or Group scarf or a tie take it off before you start to use an axe.

Finally, whenever you stop using the axe, mask it properly either by putting it back into its carrying case or by masking it in a block. There are three things to know about masking in a block:

1. The block must be heavy, so that it will not be knocked over if someone brushes against it.
2. The block must be large enough, so that the whole of the axe, head and haft, is protected by the log.
3. The whole of the cutting edge, the bit, must be buried in the log.

DANGEROUS



You may like to know that when an American Scout buys an axe from the Supply Service (The Scout Shop) he receives a card with the following written on it: –

“MY RESPONSIBILITY”

“I will use my knife and axe as tools, not playthings.

I will respect all safety rules to protect those about me.

I will respect the property of others, and will not cut living trees needlessly.

I will subscribe to ‘The Outdoor Code’ and will help others to live up to it by my example.

I understand that my ‘Toting Rights’ may be taken from me if I fail in my responsibility.”

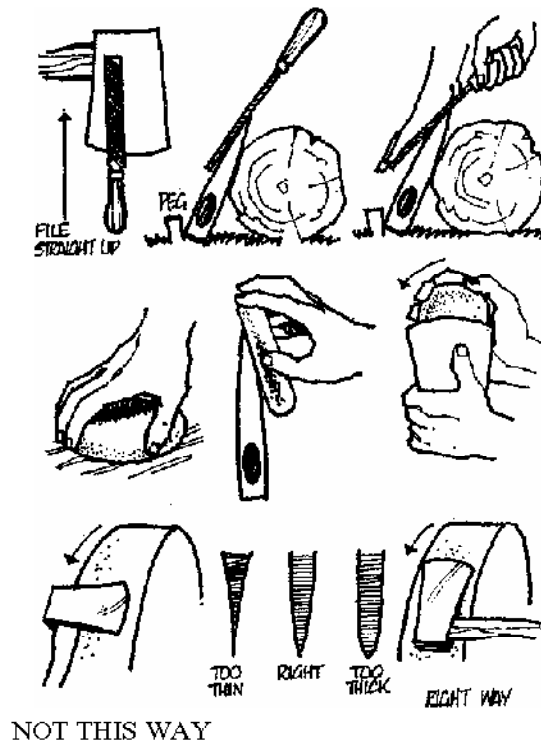
Although we do not do this in Great Britain, it is sound advice and I hope you will accept it.

Sharpening an Axe

Regular work with a carborundum stone or with a file is far better than letting an axe get into an un-usable condition and then having to grind it.

Let me remind you again: Always sharpen your axe before you put it away.

If grinding is necessary you need a soft wet sandstone and, strictly speaking, the stone should be turned towards the bit. Technically this is a much more effective way of sharpening than the obvious way of turning the stone away from the bit, but with boys this method is undoubtedly safer and, whilst it will take longer, it is a suitable way for Scouts.



There must be a constant supply of water flowing over the stone.

Grinding must be done radially, i.e., working away from the centre of the cheek towards the bit. High-speed emery stones, whilst they appear satisfactory, are no use at all because they will destroy the temper of the axe and ultimately make it useless. Effective grinding is inevitably a slow process.

It is no bad thing to have an axe bit gauge so that you know what you are aiming to achieve, and you stop when you have achieved it.

With a carborundum stone the first difficulty is to learn how to hold the stone so that you do not get your fingers mixed up in the process of sharpening. I find that the most suitable stone is a round one. These are a little more expensive than the more familiar oblong shape but they are easier to hold and safer to use. The best way I can suggest for learning to use a carborundum stone is to pick it up from a flat surface. If you do this your fingers cannot possibly project below the stone, provided that you remember not to alter your grip whilst using the stone. This is a simple trick but it really does work.

A good carborundum stone is really two stones bonded together, one side being more coarse than the other. It should be obvious that you use the coarse stone at the start of the operation and then finish with the fine stone.

When using a file – which is the way most American Scouts are taught to sharpen an axe – you have to use a method which makes it difficult for you to nick your own fingers. The drawing shows a very simple way of placing the axe so that it rests firmly on the ground, and also shows how to hold the file so that there is no danger. It should be a fairly fine, good file and one that is designed for use on metal. Such files are called “Reaper Files” or “Farmer’s Friend”.

After you have used the file it will still be necessary to use the stone to put the finishing edge on the bit and, incidentally, to work out the file marks.

Remember that whatever method of sharpening you use, you always take the carborundum stone to the axe, and you sharpen the axe as soon as you have finished using it.

Using a Felling Axe

Whilst the proved methods I shall describe are appropriate to most people, the important thing is that you hold and handle a felling axe in a way that is comfortable and natural to you. Even if your handling of an axe appears strange and uncomfortable to someone else, it is not necessarily wrong if you can learn to swing an axe properly your way. Put another way, not all good axemen look alike when they are at work.

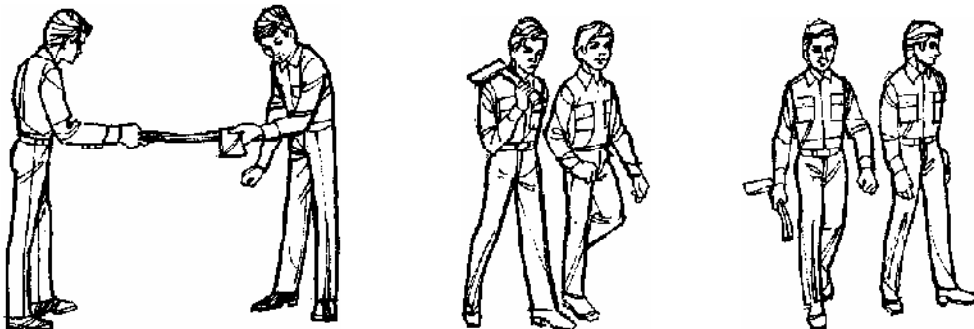
I would recommend this as a sensible process for learning how to use a felling axe: –

First and foremost, use an axe of a weight and length of haft that is suitable for you. Using an axe that is too long or too short, too heavy or too light, is unsatisfactory and can be dangerous. There are different sizes and different weights because people are of different sizes and different strengths. Those of you who play cricket will know how impossible it is to play properly with a bat that is too large or one that is too small, and it is just the same with a felling axe.

Most Scouts will need an axe with a 2½ lb. head and a three-quarter length haft, but for Venture Scouts a 3½ lb. head with a full length haft is very satisfactory. You need to be very expert and to have the opportunity for continual practice to use a heavier head with any success.

The things that are important about using a felling axe, apart from the safety rules, which we will go into later, are these: –

1. Grip the axe firmly throughout the whole operation of using it.



2. Have your feet firmly planted on the ground. Movement should come from your arms and from your trunk above the waist.

3. Keep the axe under control throughout each stroke. You can practise swinging by having an old haft with a weight fixed firmly in place of the head. As in golf, the swing is terribly important.

4. Practise on fallen timber because it is much easier to cut a log that is resting on the ground than to cut a standing tree.

5. (I have said this before but I must repeat it.) Learn to aim each blow at an exact spot on the log. When you are practising, put a chalk mark on the log and try to hit that.

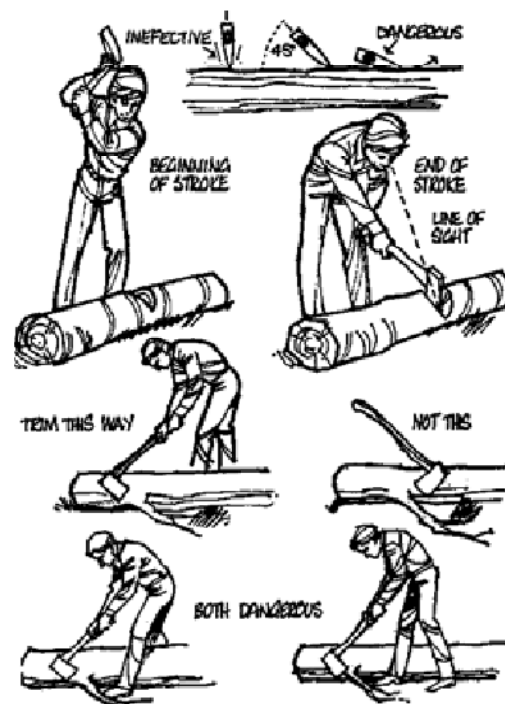
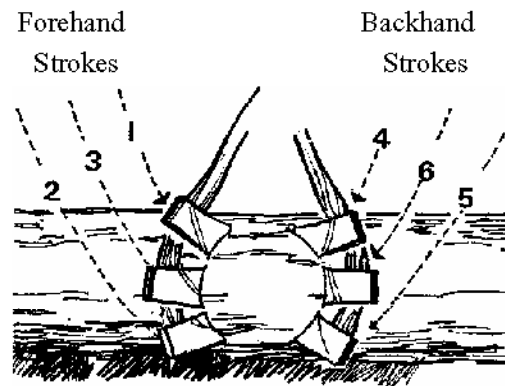
6. Learn to keep your head still and your eyes always on the point you are trying to hit. This, again, is exactly as in golf.

7. Learn from an early stage to use a felling axe with a right-hand grip and with a left-hand grip. This is essential because when you work in the woods there are many occasions when you have to work from the opposite side of the tree to the one you would normally

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choose. A right-hand grip is where the left hand is below the right hand, and a left-hand grip is where the right hand is below the left hand.

8. Learn to let the axe do the work.
9. At the top of each swing the guiding (upper) hand should touch the axe head.
10. At the moment of impact with the log the two hands should touch each other.



Felling a Tree

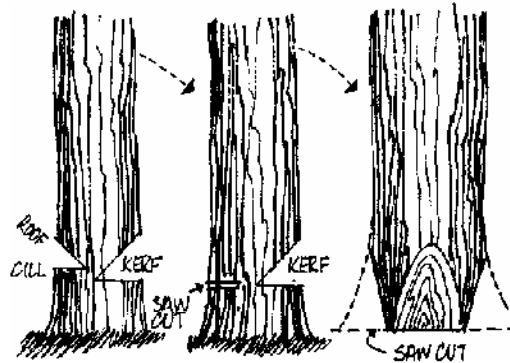
Now we will consider the whole of the procedure relating to felling a tree.

The safety rules already given to you in regard to using a hand-axe nearly all apply but as a felling axe is a bigger tool and consequently more dangerous, these other matters must also be considered.

1. Make sure that you have permission to fell the tree and that it needs to be felled,
2. Make sure that your axe is sharp and that the head is firmly fixed to the haft.

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3. Make sure you are properly dressed for the job. Axe-manship in bare feet or in camp shoes is dangerous. Stout shoes or boots should be the rig of the day, and if you are wearing a Group scarf or a tie take it off. Make sure that there is nothing protruding or hanging from your dress which can get caught by the axe.



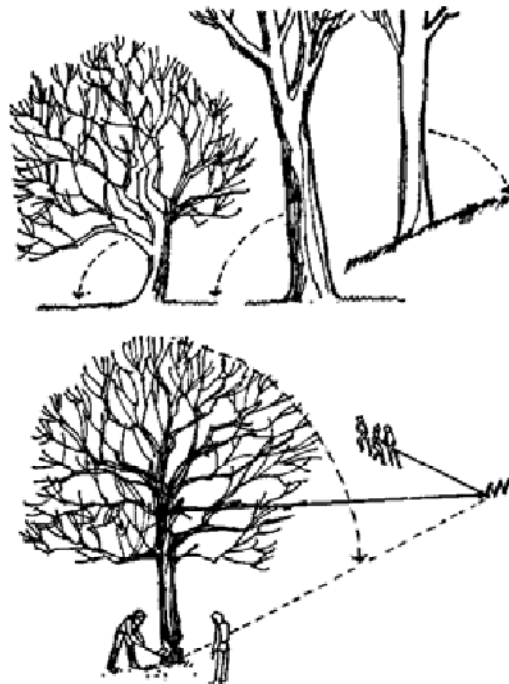
4. Clear the ground at least an axe length around the tree you wish to fell. Remember that an axe length is the length of the axe plus the length of your arm.

5. Make sure that you clear the area overhead as well as on the ground. Even contact with a very small twig can deflect an axe and cause an accident.

6. Make sure that all spectators are at least two axe lengths away and in front of the area where you will be working, i.e., well behind the anticipated line of the fall of the tree.

7. Decide where you want to fell the tree, i.e., in what direction you want it to fall.

8. Always fell uphill in preference to downhill.



9. Try to avoid felling across a stream or ravine unless you particularly want the trunk in that position.

10. Consider the natural lean of the tree. Very few trees are completely upright and, other things being equal, let the tree fall in the direction in which it will tend to fall.

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11. When felling deciduous trees bear in mind the weight of the head of the tree which may easily counteract the lean of the trunk.
12. Avoid tree felling in windy conditions.
13. Do not attempt to fell a tree when it is raining because the haft of the axe will get wet and become slippery and dangerous.
14. If you wear gloves then have them made of a material that increases the strength of your grip and avoid any sort of leather material which quickly becomes slippery.
15. If possible, have a look-out posted some distance from the tree to warn you if there is any movement.
16. If the tree has to be guided in its fall then fix a stout rope, possibly with a block and tackle, before you start using the axe.
17. Work from the side of the tree in line with the desired fall and finish from the opposite side of the tree so that when it falls it falls away from you.
18. When you are cutting, as far as possible make the cuts at an angle of 45°. This will carry the axe head into the timber. Cutting at right angles to the ground is not only hard work but is bad for the axe and generally ineffective.
19. When you tire, stop and rest. A tired axeman is dangerous.
20. Let the axe do the work. You don't fell a tree by using brute force.
21. When the tree falls, particularly if it is a deciduous tree, it may take some time to settle down so leave it alone for ten or fifteen minutes before you start trimming it and topping it. Quite often the upper branches will support the trunk immediately after falling but the weight of the trunk may break these branches and then the trunk will move.

NOTE. – If you are felling a tree on someone's land it is courteous to enquire whether the owner would like it felled flush with the ground which, from the point of view of giving the maximum amount of timber is desirable, or whether he is going to have the ground cleared of stumps, in which case he may prefer that you leave twelve or eighteen inches above ground so that a bulldozer or grab has something to grip.

Trimming

When you trim the trunk, work upwards from the base or butt, using the trunk itself as a fender between you and the axe.

Many accidents happen because too many people are let loose simultaneously on the fallen trunk. Except with a very large tree, this work should be done by one man at a time.

When the tree starts to fall the traditional shout of "Timber" should be used. A falling tree can have an hypnotic effect and the shout may result in helping someone to wake up and move out of danger. (They should not have been there in the first place but sometimes spectators stray where they should not be.)

SAWS

Saws do not have the romance of an axe and their use does not appeal so much to the average Scout, but, nonetheless, they are part of a forester's equipment, and increasingly so. As the value of timber increases, the more important it becomes to conserve all the useful timber. A saw cut, compared with even a well axed kerf is a great economy, and so we ought to know how to use a saw and to know the type of saw useful for most situations.

Cross Cut Saws

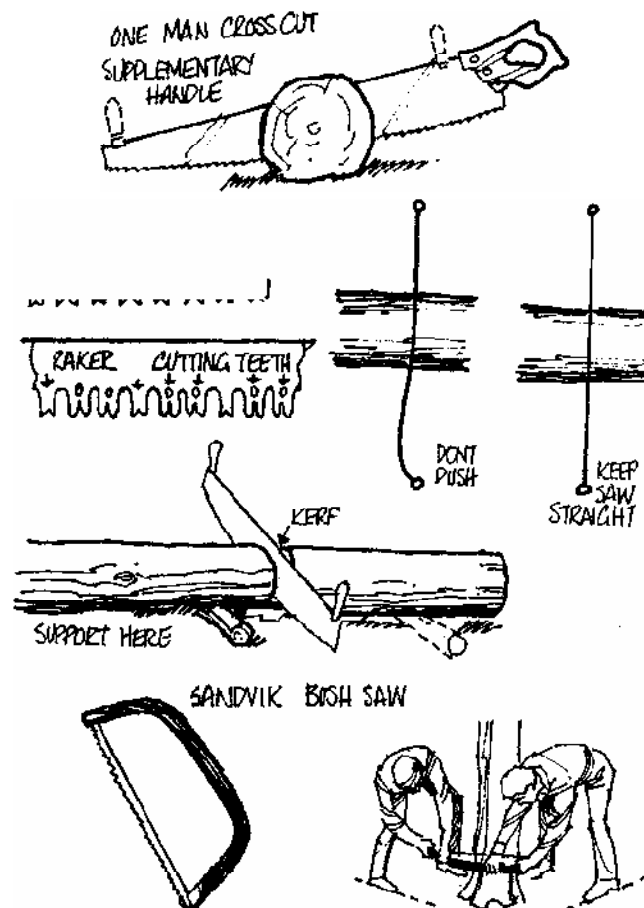
These are large; four or five feet or even longer. They can be used for felling a tree, although this is an expert operation, but they should certainly be used for cutting up the main trunk after felling into whatever lengths are desired.

A cross cut saw of whatever type will have some teeth designed for cutting and some teeth, called rakers, to draw out the sawdust which the cutting teeth have made and thus prevent the cut from becoming clogged. Some cross cut saws have detachable handles, the idea being that for felling they can be set at right angles to the cutting edge, but really a saw with fixed handles is more sturdy and you can learn to fell just as quickly with a fixed handle saw, and just as effectively; in fact, I think more effectively.

Before using a cross cut saw make sure it is sharp and that the handles are secure. With a hand or felling axe remove all the bark from the tree where you are going to make the cut as the bark is usually too soft to enable the saw to do its work and it is easier to take off the bark before you start sawing.

As in axemanship, a firm foothold is essential and there should not be any movement of the feet once you start sawing.

It is essential to work with the full length of the blade, and therefore there is no point in giving a young Scout a long-bladed saw because he will be unable to put it to maximum use.



The golden rule is "Pull and do not Push". Pushing the saw will quickly buckle it, damaging the cutting edge of the teeth and, incidentally, will allow your partner to become a passenger.

Keep the saw straight and work rhythmically. Don't rock the saw and don't force it. If, as can happen when you are cutting through a fallen trunk and you get past the half-way stage, the cut begins to close over the saw, drive in wooden or metal wedges above the saw. An occasional drop of thin oil on the blade will help.

When you have finished the job, clean the saw and give it a final coat of oil before you put it away.

Bush Saws

These saws are ideal for working on small size timber and are perfect in a camp kitchen because it means no chips (of the uneatable kind).

At Gilwell the Sandvic Saw is favoured. We have found these saws to cut no less than four times as fast as other makes.

Obviously the blade must be sharp and, although it sounds wasteful, new blades for this type of saw are relatively cheap and it is therefore usually better to put in a new blade instead of having the old one sharpened. Sharpening saw blades is not a job for an amateur.

Bush saws come in a variety of sizes. There is no point in using a saw larger than the job demands.

As with all saws, start slowly until the cutting edge has a firm grip in the log and then you can go as quickly as you like.

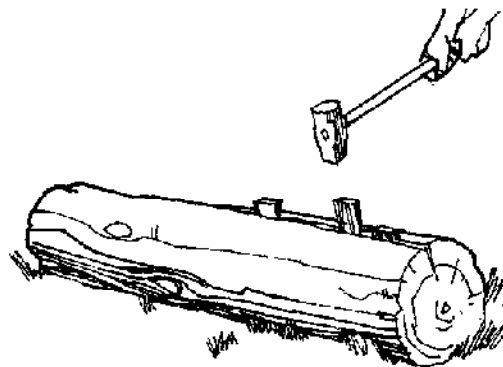
Masking saws presents a problem in camp, and probably the simplest way is to use a sacking wrap and to hang the saw out of harm's way. They should never be left on the ground, and you obviously cannot mask them effectively in a log as you do an axe.

Hammer and Wedges

This is a very simple way of producing firewood, and a very safe way. The skilled user of a hammer and wedge can get a lot of satisfaction out of the job.

Follow the grain of the wood.

Try to have at least three wedges so that if one becomes buried in the log and still no split occurs, you can drive in another wedge higher up the log and use the third alongside the first wedge, which will usually release it.



If you are using a lot of wedges, remember to count them when you start the job and again when you finish: they have a nasty habit of straying off into the undergrowth.

Finally we come to a few random thoughts some of which I have referred to already but which are offered as a reminder as to how to regard your axe.

The Scout and his Axe

An axe can be a good friend or a dangerous weapon: it can be a useful tool or something that you will always be a little afraid of because you have not learned to master it. You must never take it for granted. It deserves constant care and attention. Keep it sharp and clean and ready for use: it is not a thing to hide away at home or in camp; you should always know where it is. It can make you a fire and build you a shelter, help you in your pioneering and exploration but misuse it and, like a badly treated dog, it will turn and bite its owner, and it can bite deep and can hurt.

I have had the good fortune to watch Australian professional axemen at work, men who earn their living by their skill with an axe. I have seen their magnificent exploits but I have also seen the loving care with which they look after the axe, restoring it to good condition after a hard day's work and preparing it for the work that lies ahead.

My last few suggestions are repetitions, but I think they are very important for Scouts: –

1. Whenever you use an axe make sure that there is no body within the danger area.
 2. Stop when you are tired. If your wrist gets weak the axe can fly and harm either you or anyone who is near.
 3. Never take your eye off the spot on the log or stick that you want to hit.
 4. Always check that you have moved the extra things from your uniform so that there is no danger of a Group scarf or a tie diverting the path of the axe.
 5. Try to have an axe of your own and when you have it care for it and learn to use it as part of yourself, not as a strange implement.
 6. Whenever you can, use your axe to improve the forest, the garden, or the camp site: never use it as an organ of destruction.
 7. Do not use an axe heavier than you can master and control.
 8. If the axe develops defects such as the haft becoming loose from the head, stop and repair it.
 9. Keep your axe in such a way that if the Chief Scout himself asked to see it you can be proud to show it to him.
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