

Getting the most from

NATURE

by Mike Jarman

Fire and Food

This part of the article is broken down into 2 parts. The first part deals with preparing and lighting a fire. The second part, in the next issue, will deal with friction firelighting and how you can make your own friction firelighting set at home. Edible wild plants will follow after that!

PART A FIRELIGHTING

If there is one activity that everyone enjoys when out in the woods, it is sitting around a campfire. It entertains and absorbs us, adds to the feelings of companionship of those sat around it and draws stragglers to its warmth. It can quite rightly be called 'Primitive TV', as it effortlessly holds the attention of those close to it.



Primitive TV – we all are fascinated by fire

Yet the ability to light a fire is the one activity that separates us from all other animals on the planet. We are the only ones who have been able to master the ability to light fire on demand. Through the ages since this discovery it has warmed our shelters, cooked our food, boiled our water, kept wild animals at bay, signalled our presence or warned of trouble. It has always increased the morale of any group that could summon it and yet its absence normally signalled a group that was in the direst of straights. It is truly one of the most important survival skills to learn.

The benefits of this ability are many and some can still be felt today. Imagine, for example, eating raw food day in, day out. That might be OK for vegetables and fruit but raw meatevery day? A visit to a restaurant would be interesting. "How would you like your steak, sir; bloody and raw or raw and bloody?"

Although the original 'who' and 'when' of this pivotal discovery are forever lost in the mists of time, it is generally believed that man discovered how to make fire between 250,000 and 500,000 years ago. There is even one archaeological site in Israel where the remains of a controlled fire have been dated to 790,000 years ago. What is for certain is that man had conclusively discovered

how to make and control fire some 200,000 years ago. This discovery not only ensured our place as the pre-eminent species on the planet but also enabled us to spread to areas where the climate was much colder. This could never have been achieved without fire.

It's interesting just to step back a moment and consider just how important a discovery this was. It is no exaggeration to say it transformed human development and set in motion the path that had brought us to where we as a human race are today. Without fire, we would be limited to specific areas of the planet where the temperature enabled us to exist comfortably, normally centred just above and below the equator. Without fire, there would have been no industrial revolution as there would have been no steam engines. Metal would never have been smelted, petrol and diesel could not be refined from crude oil and plastics would never have been invented. In fact, our whole world would be unrecognisable from its present state. We would probably be existing in a pre-stone age lifestyle!

In fact, fire has been and will continue to be critical to our survival. Even in modern times, its importance has been firmly re-established whenever there has been war or disaster. As an example, Prisoners of War in Japanese POW camps in WWII regularly used to split a match into quarters or even eighths because of a shortage of matches and still be able to light fires. Also in WWII, firelighting was the first skill to be taught to all new recruits to the famous Bielski partisan group, fighting against the Germans from deep inside wooded areas in modern day Belarus.

The amazing thing is that you can have a go at making fire exactly as our ancestors would have done because all the necessary materials are out there. As we shall see in the next issue, you can make fire by friction using a large number of woods that are found in the UK, just as our primitive ancestors would have done. Flint abounds in several areas of the UK, especially at Salisbury Plain. The incredible feeling of success and accomplishment that comes from making fire in this way will put the widest of smiles on anyone's face!

Getting To Grips With Fire

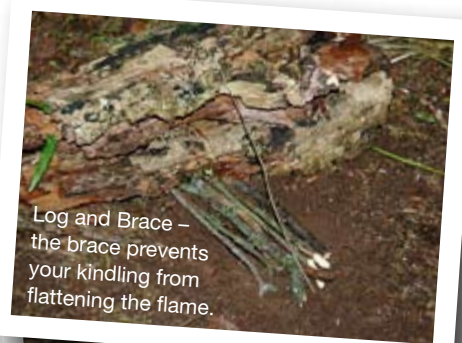
Firelighting is a skill and one that requires regular practice in order to become proficient. The better you are, the less modern devices you need. You know you are really getting somewhere when you can regularly light a fire just by rubbing sticks together. However, this skill does not come overnight and it makes sense to become proficient at lighting it without difficulty using matches or a lighter under any conditions before you look at lighting it through friction-based methods.

There are three important stages to consider when lighting a fire. The first of these concerns where to place it and what wood to burn.

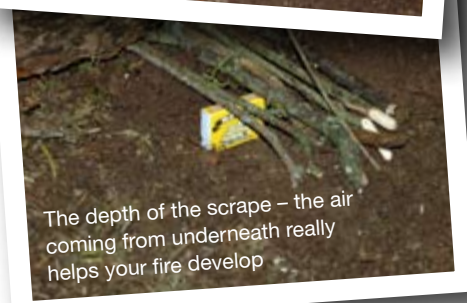
Part 1. Preparing The Fireplace And Gathering Your Wood.

The first step is to think where you are going to light your fire and prepare it properly. If you prepare the fireplace carefully, you control the fire. If you don't, the fire may control you and get out of hand. Stated bluntly, it is an unforgiveable sin to start a forest fire through carelessness or stupidity and it happens on an all too regular basis. Just think of Greece, California and Australia, all devastated by man-made fires in the last 12 months. To avoid this, you must clear an area of any combustible material (a 6ft circle is the norm) so you are lighting a fire on bare earth. You must also be at least 2m away from any trees or tree stumps and sheltered from the wind and the rain.

Once you've done this, you can collect your wood and prepare to light your fire. My favourite method is called the log and brace. As you can see from the photograph, a log is placed on the windward side and a very shallow pit is excavated below where your fire will go. Pencil thick twigs are placed across this pit – this holds the fire off the wet ground to start with and ensures a good supply of oxygen from underneath to the fledgling fire. The final part of this set up is the brace. A thin (and it must be thin) twig is laid across the fire area - this ensures that when you put your first load of matchstick twigs on your fire, it doesn't crush the tiny flame and put it out. I find using this method really helps in starting a fire under any conditions.



Log and Brace – the brace prevents your kindling from flattening the flame.



The depth of the scrape – the air coming from underneath really helps your fire develop

A deep knowledge of the burning properties of different woods will also help, especially regarding the amount of heat produced and the longevity of the coals. No two species of tree burn in the same way. With the advent of electricity and gas in the kitchen, the ability to boil and simmer is very simple. Cooking over an open fire or heating your house/shelter is much more challenging and requires a much more detailed understanding of how wood burns. Just how important can be seen through the 'Log's To Burn' poem, which used to be taught to children to help them understand the differences between trees. It still remains an excellent way to learn the burn properties of many of the trees commonly found in the UK.

LOGS TO BURN

*Logs to burn, logs to burn, Logs to save the coal a turn
Here's a word to make you wise, When you hear the woodman's cries.
Never heed his usual tale, That he has good logs for sale,
But read these lines and really learn, the proper kind of logs to burn.*

*OAK logs will warm you well, If they're old and dry.
LARCH logs of pine wood smell, But the sparks will fly.
BEECH logs for Christmas time, YEW logs heat well.
SCOTCH logs it is a crime, For anyone to sell.*

*BIRCH logs will burn too fast, CHESTNUT scarce at all
HAWTHORN logs are good to last, If you cut them in the fall
HOLLY logs will burn like wax, You should burn them green
ELM logs like smouldering flax, No flame to be seen*

*PEAR logs and APPLE logs, they will scent your room.
CHERRY logs across the dogs, Smell like flowers in bloom
But ASH logs, all smooth and grey, burn them green or old;
Buy up all that come your way, They're worth their weight in gold.*

A Common Mistake and How To Avoid It

Probably the most common mistake is to put on wood that is too big, too soon. This has the effect of sucking all the heat from the fire and may even put it out. Probably the easiest way to understand this is to look at the fire triangle.



Just about everyone knows that a fire needs oxygen, fuel and heat to survive and grow. Take any one of these three away and the fire will go out. The reason why some fires will

struggle, especially in the early stages, is because the concept of heat is ignored. If you put large wood to a small flame, it won't catch as there is not enough heat for it to combust. Yet if you put twigs that are matchstick thin to the same flame, they will catch. In a nutshell, you must build a fire by adding progressively bigger wood. Too big, too soon the fire will probably fail. If this seems to be stating the obvious, it is the biggest cause of failed fires that I know of!

If you grade your firewood to the following grades and **ALWAYS** have at least two handfuls worth of each grade, you should never fail.

Grade 1 Matchstick thin and about a hand span long. Birch and spruce are very good. This is the most important stage - You must

have at least two good handfuls and it must be bone dry!

Grade 2 Pencil thick.

Grade 3 Little finger thick

Grade 4 Thumb thick

Grade 5 Wrist thick



Grades 1-3 **MUST** be bone dry. Never pick this wood off the forest floor – always pick it from dead branches or fallen trees

Part 2. Lighting The Fire

Now for the fun stuff! You should always try to have several different methods of lighting a fire with you. That way, should one method prove difficult you simply try another way. When going into remote areas, I personally take at least 4 different methods of firelighting, including matches and lighters. Inside the arctic circle, I carried a small plastic bottle of nail varnish remover – excellent for lighting small fires when you need to in a hurry (imagine falling through the ice in the middle of nowhere and you understand how important this is!) That way I know I have 100% confidence in being able to light a fire. When your life's on the line, you can't afford to fail!

Always the last item to come out when you're lighting a fire is your tinder. This is the item that will ignite easily from a spark. There are many things you can use for tinder. These include cotton wool, Birch bark, dried grass, very fine wood shavings, fungi (especially Cramp Balls), Oak apples and Cotton Grass. They must all be absolutely bone dry to work properly.



Carefully place your tinder on the thin twigs by the log and light it. Place the brace over the tinder, leaving a small space so that the flame has a chance to grow, and place two handfuls of the matchstick thin twigs on top. When these are burning merrily place two handfuls of your Grade 2 kindling on – the pencil thick twigs. Yet again, wait until they

have caught and then add the next Grade of kindling. By adding all the grades in this fashion, you will quickly and effectively light a fire. Remember – don't cut corners in the amounts you collect, especially of the Grade 1 twigs.



Part 3. Using And Maintaining The Fire

A fire thrives on attention. By carefully adjusting and rearranging wood as it burns down and adding more when necessary, you can maintain the temperature you want. Most importantly, you ensure the fire does not get out of control or go out! Over time, you develop a feel for what the fire is doing, when it is struggling, when it is sufficient for purpose and when it is not. The most important thing is to practise using fires for boiling water, cooking food or heating your house. The more you practise, the better you will get. A good way to start is to practise at the bottom of your garden.

Above everything else, the fire must always be treated with respect, never left unattended and must always be totally out before you leave. A fire can easily smoulder and then reignite later, with potentially devastating consequences. Once the fire is out, you should scatter the ashes, ensuring there is no mess for others to find. By practising 'leave no trace' principles, you ensure you leave the area just as you would hope to find it.

If it seems that fires are forbidden from just about everywhere in the UK and many places abroad, there is a reason. It has almost always come about as a result of people lighting fires that have caused problems, sometimes life threatening ones. Please don't become one of them!

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