

STOVES

Stoves are potentially one of the most hazardous outdoor products. Used correctly they can provide a powerful and efficient means of cooking food and boiling water.

Burners

There are two main types of burner - pressurised and unpressurised. Unpressurised burners (such as methylated spirit stoves and solid fuel cookers) produce a semi-controllable or uncontrollable flame that requires no priming or preparation to light. They are fine for low altitudes where a low heat output is all that is required. Pressurised burners may run from a liquid fuel such as petrol or paraffin, or from bottled gas. Most pressurised burners can have their heat output regulated but may need 'priming' in cold conditions in order to turn the fuel from a liquid to a gas.

Fuels

All fuels are highly flammable and must be handled with caution. Keep all fuels away from naked flames until you are ready to light the burner. Some cautionary notes about particular fuels follows:

Solid fuel

Certain brands give off toxic fumes. Only use outside in very well-ventilated areas.

Methylated spirits

In much of Europe this is sold as a clear rather than purple fuel, making it almost impossible to see the flame produced. Ensure that the stove is properly extinguished before refilling the burner.

Petrol & paraffin

Can easily taint clothing and equipment. Take time to evaporate when spilled, so clean-up before re-lighting. Fuel quality, particularly in third-world countries, can be extremely variable so ensure that the fuel line and jet in your stove can be easily dismantled and cleaned.

Gas

Re-sealable cartridges with a valve and screw thread may be removed when only partly used. 'Puncture' style cartridges must be empty before removing. Empty cartridges must be carried out of wilderness areas and disposed of safely. Do not throw into regular rubbish containers. In the UK most council-run waste disposal sites have separate processing facilities for these items. Large refillable gas cylinders (such as those found on caravans) should only be refilled by a qualified gas supplier; do not attempt to refill small gas cartridges. Never use a gas cylinder or cartridge on its side.

General Advice

1. Practice the 'strip, clean & assemble' procedure for your stove, and carry the relevant maintenance kit.
2. Always cook in a well-ventilated area and avoid cooking in a confined space (such as a tent).
3. Keep stoves away from flammable materials such as clothing, sleeping bags and tents.
4. Reducing the pressure in liquid fuel bottles will produce a smaller flame to enable simmering to take place.
5. Never leave a stove unattended or within reach of children.
6. A leaking stove can result in an explosion, a fire or carbon monoxide poisoning. Check that all washers and connectors are in good condition.
7. Take care not to over-pressurise fuel tanks. Follow the manufacturer's instructions regarding releasing pressure before re-filling.

Budget Stoves

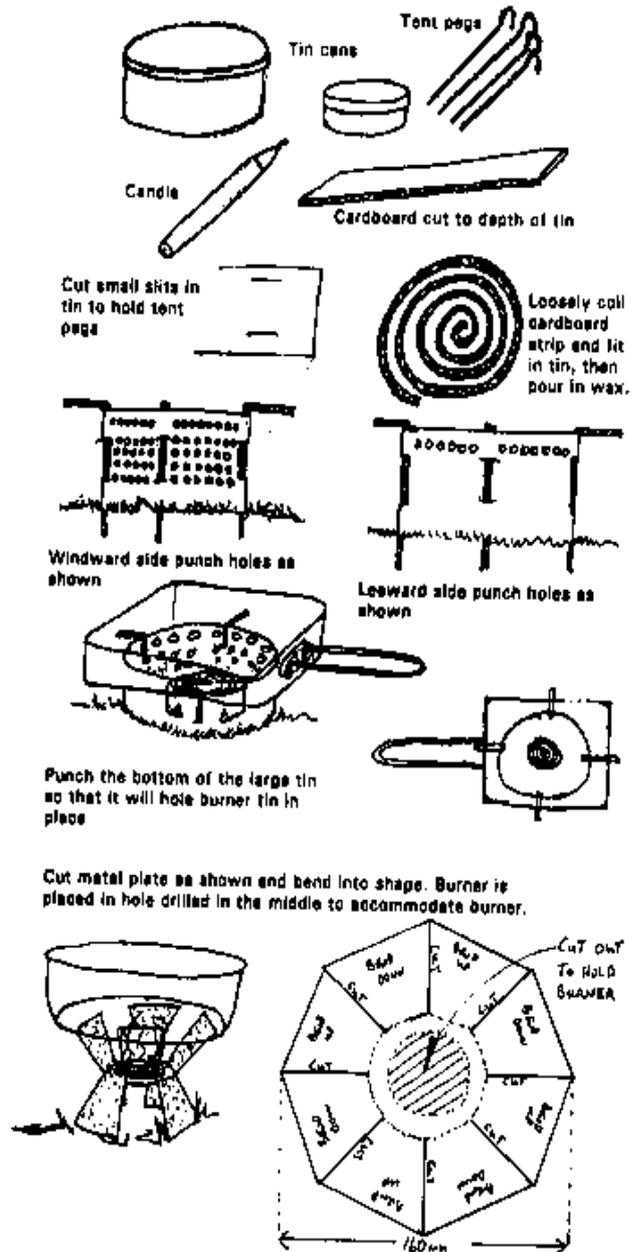
Commercial stoves can be expensive to buy and if you are only new to hiking and would like to get to know the ropes before you purchase some of the more expensive items of equipment then you may wish to try your hand at making the budget stoves illustrated

The heat source can be either from solid fuel tablets, methylated spirit or candle power.

The cheapest stove - candle power will only cost you a pound or less to make. The heat source is from a large candle made by rolling up corrugated cardboard in a small 2 oz tobacco tin or similar and pouring melted wax through it. When light the candle will have a large multiple flame. A candle such as this will have a burning time of approx. 30mins. If you wish to use such a stove for a weekend activity it would be necessary to make two or three candles. One disadvantage of this type of stove is that it creates a lot of soot on the bottom of your pot. This stove can be improved by using meths in the tobacco tin as your heat source. If you want to spend a little bit more money then I suggest you buy a meths burner which are sold as spare parts for the Trangia stove. This burner has an internal wick and is more economical in its use of meths. This can be used in the tin can stove shown or if you wish you could create a simple stove if you are handy with some sheet metal.

The efficiency of all stoves can be improved by protecting heat source from direct wind by means of a wind shield.

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Stoves

If you intend doing a lot of walking in wild countryside and perhaps extending them into two or more days on the trail then you will also have to consider buying a stove on which to cook your food. Fires are not an option in open countryside. The best and most functional stove and the one recommended for Scout use is the Trangia stove. These stoves come complete with two pots and a lid which can be used for frying. The stove burns methylated spirit and is very proficient in its use of fuel. Gas stoves are generally discouraged because in unsheltered conditions they are inefficient. Pressure stoves are good but are expensive. They are cheap to run but can be fiddly with pricklers to keep jet clean and pumps etc.

Solid fuel stoves are also useful and can be brought quite cheaply in most camping shops. The stoves fold out to form a frame on which the fuel pellets are burnt. Some people use the fuel pellets as a back up when using a meths stove. These solid fuel stoves are so cheap and portable that nearly every Scout could own one as part of their emergency kit. (See "tin can stoves" in survival section.)

