



WOOD **C** **O**

Wood has two immense advantages- it is a renewable fuel, and, because a burning log can't give out any more carbon than the tree took in while living it is considered to be greenhouse gas 'neutral'. When wood is cut down its cells are full of water. Burning such wet or 'green' wood wastes heat in making steam and produces flammable, acidic tars which will cling to, and can very rapidly damage, your stove and chimney. Logs should be dried for *at least* a year, out of doors in free air protected from rain, split *lengthways*, as in the illustration here. When dry enough to burn, the ends will develop radial cracks. The fine white residue produced when wood partly burns is not ash, but the remains of cell walls which can burn if kept hot enough, so don't de-ash a wood fire until absolutely necessary. Wood is not a smokeless fuel, but it can burn without smoke on some specially-designed appliances.

PELLETS **C** **S**



Bio-fuel pellets made from wood (or, occasionally, grass) can be burned only on special-purpose automatic-feed stoves and boilers. They offer most of the environmental benefits of natural wood, with greatly improved convenience. Dried maize seeds or olive stones are used in the same way in some areas.

ANTHRACITE **C** **S**



Anthracite and the very similar DRY STEAM COAL are natural, smokeless, hard, shiny forms of coal formed at great depth over some 300 million years. Though difficult to light, they burn with great heat and last a very long time - up to 24hrs per fill even on the simplest stove. Choose the 'small nuts' size for most stoves, or the tiny 'peas' 'beans' or 'grains' (also called RICE COAL) for specially designed automatic feed stoves and central-heating boilers. Although expensive per kg, anthracite is usually very economical in use.

PEAT or TURF **C** **O**



Peat is woody material which has semi-decomposed over about 1000 years. It is the earliest stage in the formation of coal.

The nearly black moorland or bog peat should be dried and treated as for wood.

OVOIDS and BRIQUETTES **C** **S** **O**



... are compressed blocks of fuel, generally able to burn for long periods and remarkable for their consistency. 'Homefire' and 'Phurnacite' are smokeless types made from mineral materials, while other brands are made from wood, lignite, peat or housecoal.

LIGNITE or BROWN COAL **C**



Lignite is a natural mineral, intermediate between peat and coal, formed over about 4000 years. It lights easily and burns well, though some varieties produce very large quantities of ash. Apart from a small deposit in Ireland it is rarely encountered in the British Isles, but is commonplace in Central and Eastern Europe

COKE **C** **S**



Smokeless coke is natural coal from which the smoke has been removed (the smoke is distilled to make, among other things, aspirin, creosote and ink). Hard metallurgical cokes (like 'Sunbrite') are extremely clean and long lasting, but rather bulky and can be very difficult to ignite

BITUMINOUS COAL **O**



Bituminous coal, is raw, natural coal, from woody deposits of about 100 million years ago. Inexpensive, easy to light and low in ash, it burns with great heat and an attractive flame. However, it makes tarry smoke which will tend to stain stove windows, and large volumes of flammable gas which make it difficult to control.

It is the traditional fuel for Victorian bar-fronted fireplaces, where the very large 'cobbles' size would have been used. Modern appliances generally prefer the smaller 'trebles' or 'doubles'. Some types swell and become sticky when hot - use the poker to break it up.

PETROLEUM COKE



...sold as 'Petcoke', 'Longbeach' and under various proprietary names, is made from oil residues. Its exceptional heat, high acid content and lack of protective ash mean that grate and firebar life will be drastically reduced, unless your fire has special chromium alloy bars. It is rarely sold unless mixed with another, less reactive, fuel.

HOUSEHOLD WASTES It is possible to burn small quantities of *dry* kitchen waste, such as bones, on most appliances, though paper is extraordinarily difficult to keep alight. Joinery waste can be a very good fuel, if free from coatings, but not MDF or chipboard. Most plastics give off toxic fumes when burned and remember that batteries and aerosols explode! NEVER use liquid fuels in any form.

HOUSECOAL is a general term for whatever form of coal is commonly supplied for domestic use. In the UK and Ireland it is Bituminous Coal, in North America it is Anthracite. **SLACK** is dusty bituminous coal residues, 'nutty slack' if it contains significant lumps, while **BREEZE** has a similar meaning for coke.

S = smokeless

O = recommended for open fires

C = recommended for closed stoves