

Using Gas in A Caravan

Last month we investigated ways of utilising 12 volts electricity as a source of power. Now we will look into ways of using gas. Caravanners in this country mainly use Butane; a few use Propane. What is the difference? Both liquefy at reasonably low pressures so can be stored as a liquid. But as we noted when looking at refrigeration, allowing liquids to gasify drops their temperature. Thus if the weather is very cold and we are calling on a cylinder of Butane heavily, its temperature may drop so low that the liquid freezes. Then gas will cease to come off and out goes our heater. Propane however freezes at a much lower temperature. Then why do we not all use it? Mainly because it does not produce so much heat - its calorific value is lower than Butane - and it also costs more.

Not so many years ago most caravans were lit by gas light. It is rather the exception now with the multitude of fluorescent discharge tubes available, and we mainly call upon gas for space heating and cooking. For short periods of use there are many types of convector and gas fires available. The difference? Convectors heat by first passing the hot gases and heated air upwards and as these cool a little, they sink. Thus it is always hotter overhead and the floor is cooler. But they are safe when children are around. Fires can direct the heat down at your feet more easily. It will also rise anyway. But they should be fixed when youngsters are rushing about. For long periods and all night use you should install a flued heater as advised in previous articles. I have found the Holt Rogers, the Morco and the Carver all satisfactory and their acceptability and efficiency fairly mirrored in their ascending price tags.

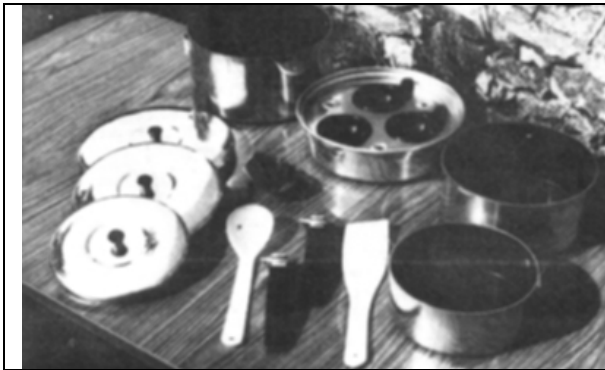
A few years ago there was available a small instant water-heater for caravans. Embassy amongst others fitted it as standard. Then it disappeared and I received a lot of enquiries for a substitute. I knew of none. But now T. B. Morley offer the Morco Gasstar, a neat wall fitting heater measuring 14½" wide, 8" high and 4¾" deep. Water passed through this, either from an electric pump or a hand or foot operated one, will emerge, either cold or up to 4 pints a minute at 40°C (104°F). The gas lights at the press of a button thanks to a Piezo crystal and can only turn up high when water is actually running through. Otherwise only the pilot burns. The price is £31 .80 plus VAT.

Now whatever gas fitting you have been doing it is vital that the system is not leaking—particularly if there is a pilot light anywhere to trigger off an explosion. Make yourself a Test Bottle. Look at my photo. You need a small bottle with a strong well fitting screw lid. Fit a rubber washer inside this and through it two lengths of ¼" copper tube. The first goes to the bottom and the second is short, Connect the long one to your gas supply and leave the short unconnected at the moment. Put water in the bottle securely blocking off the exit via the short pipe and turn on the gas. A few bubbles will pass and then cease. If not then your bottle is leaking somewhere.

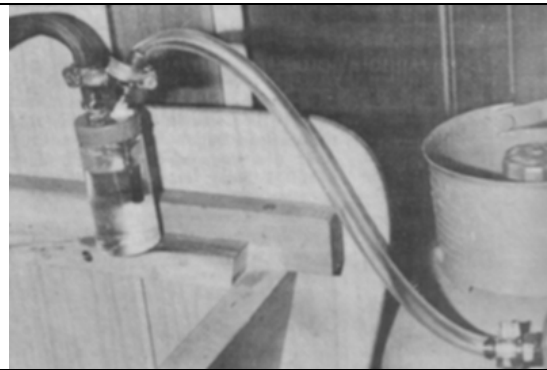
Now connect the short pipe to your caravan system and with all the outlet taps turned off, apply the gas pressure. Bubbles will pass as the system pressurises but then they should practically cease. If your system is 100% leakproof they will stop completely but this practically never is so. Compression joints should not leak but many taper barrel types do very, very slightly. One firm of gas engineers say that so long as there are not more than 10 small bubble a minute passing, it can be considered satisfactory. B. I would hope for less. My outfit passes 4 a minute which accept as good.

Now to cooking. A good hotplate has burners with small holes close together for lighting round, and it burns with a clear flame. If it is yellow, suspect the jet. It should be cleanly drilled with no burrs as the small stream of gas has to drag in a large amount of air. Clean it with a piece of 5 amp fuse wire. The ring lights easily by match, flint lighter or battery operated lighter. But you can have the press-button lighting enjoyed by the water heater mentioned above or the Carver Trumatic Heater or the Electrolux refrigerator. In the shops now is the Junkers Piezo Gun. It looks like a pistol. Pull the trigger and you cause a Piezo crystal to be struck. This has the property of producing an electric current when hit. Not much but very high voltage. So it produces a spark like that at the point of a car sparking plug. Very high temperature too. The exploded drawing shows how it works. It costs just over two pounds including a fixing device. Mine hangs on the door of the cooking locker.

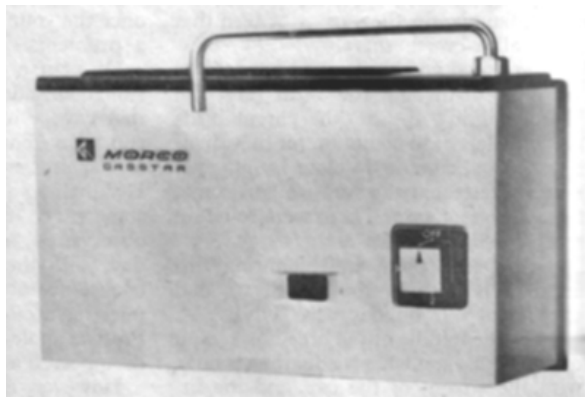
And now to cook the food. Non-stick pans have made the "washer-up's" life much easier. But the handles of saucepans take up so much room in the caravan cupboard. In my lightweight tenting days I used removable handles. But they were flimsy wire things. Now Harbenware have solved our problems. A while ago they produced for us the "Compact" set - 3 saucepans, a frypan, 3 egg poacher, all with lids and robust removable handles. Even a non-scratch spoon and egg slice. And everything goes inside the saucepan. What a saving of space. We put a piece of polythene between the saucepans when packing up. This prevents the non-stick surfaces from getting scratched. Harbenware have now brought out a smaller set designed for two in a caravan. My testers are using it in conjunction with a pressure cooker and are quite satisfied. But the larger set is all sufficient. It is the C.S.31 and priced at £9.36 and the smaller CS. is £6.87. But here is good news. If you order direct from Dept H, Harbenware Ltd., Hanover Mill, Fitzroy Street, Ashton-under-Lyne, Lancs., and say you read my article in "Camping & Caravanning" you can have the C.S.31 for £6.67 and the C.S.37 for £4.43. Both figures include VAT and post and packing.



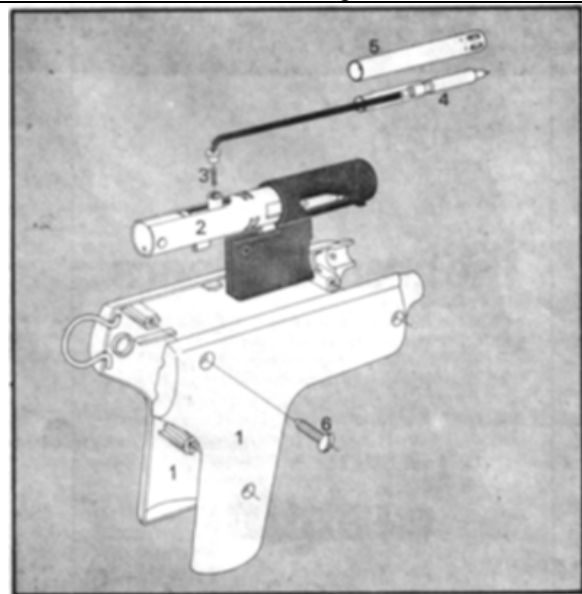
The Harbenware Compact Set.



Gasleak Testing Bottle.



Morco Gasstar Waterheater.



Junkers Gas Igniter (exploded View)

1. Housing
2. Piezo element assembly
3. Spring
4. Electrode
5. Counter-electrode
6. Self-tapping screw

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