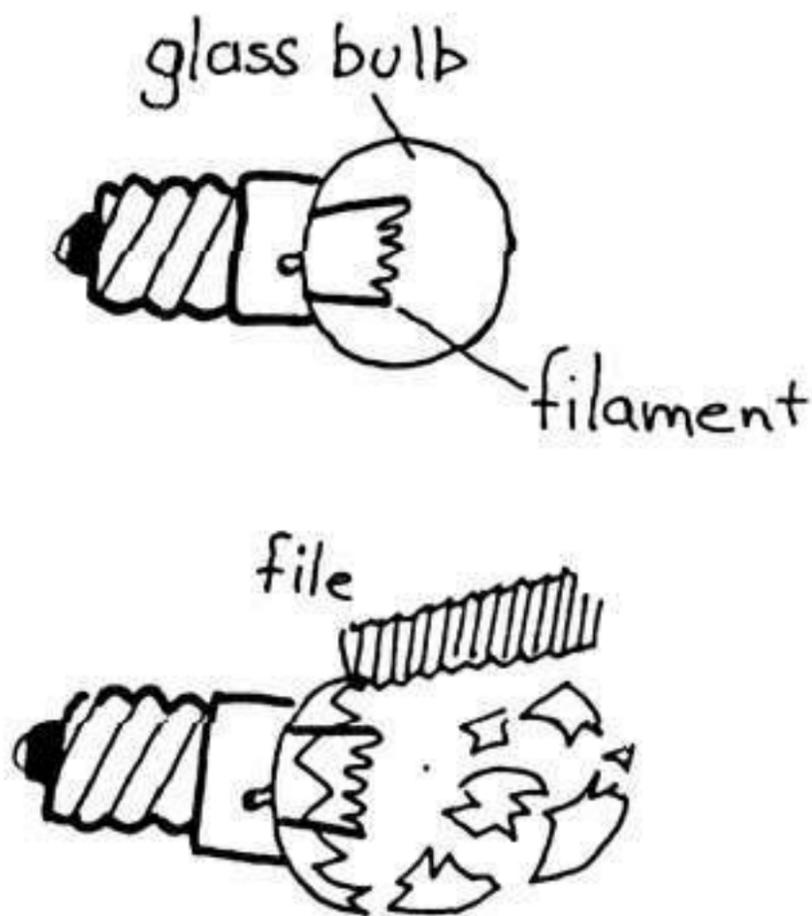


LEARN with DAWN

You too Countryman, can be a Freedom Fighter

A common and easy way of making a time-delay is by electric means. If you are unclear about electricity, study diagrams 5, 6, 7, 8 and 9 carefully.

There are a number of ways to make electric igniters. One of the simplest ways is with a small light-bulb, the sort used in electric torches. With an iron file, gently break the glass bulb open, taking care not to damage the wire *filament* (i.e. the part that glows).



Remove the broken glass and fix your incendiary mixture (potassium chlorate and sugar or powdered match-heads) to the filament. The best way of doing this is by using a nail varnish brush dipped in colourless nail varnish which acts like glue, and sprinkling the powder gently over the filament. Next, using a small sol-

dering iron, solder two pieces of thin electric wire, each about 15 cm long, onto the bulb. One wire at the tip A, and the other on the metal side B.

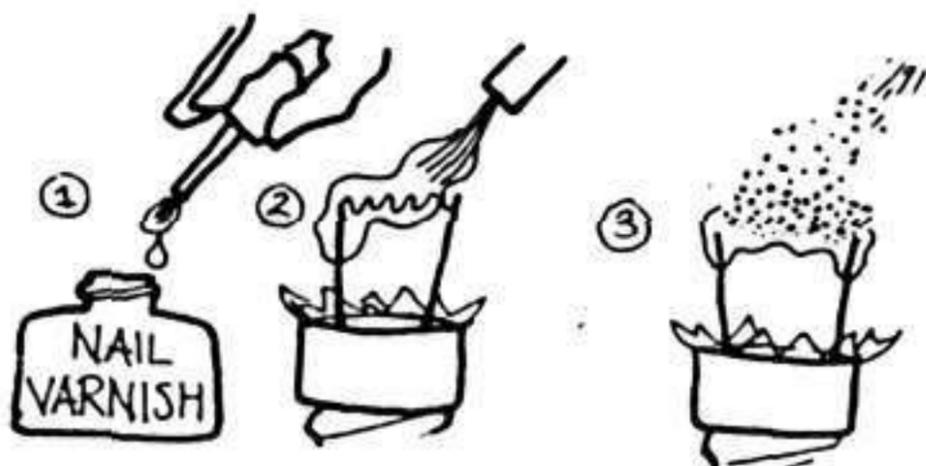
HOW TO MAKE POWDERED MATCH HEADS FOR ELECTRIC IGNITERS:

If you cannot get the chemicals to make incendiary mixtures for electric igniters (e.g. potassium chlorate) you can use the heads of matches instead; but they have to be grinded to powder first.

Remove the match heads from the match sticks either by chipping them off with a knife, or better, by squeezing them with pliers. Do not get any chips of wood mixed with the bits of match heads.

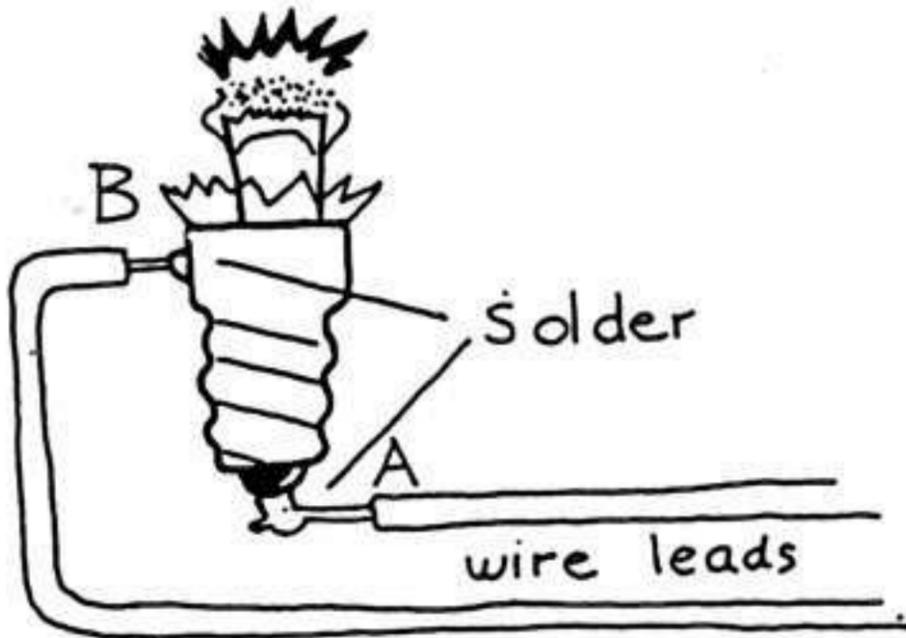
Then grind the match heads using a pestle and mortar; or you can grind them in one of those bowls used for grinding garlic and other spices; or use stones, etc. The match heads should be ground as fine as possible — like flour.

When using the match head powder it is not necessary to mix it with anything (e.g. sugar). Use it as it is. If using it on

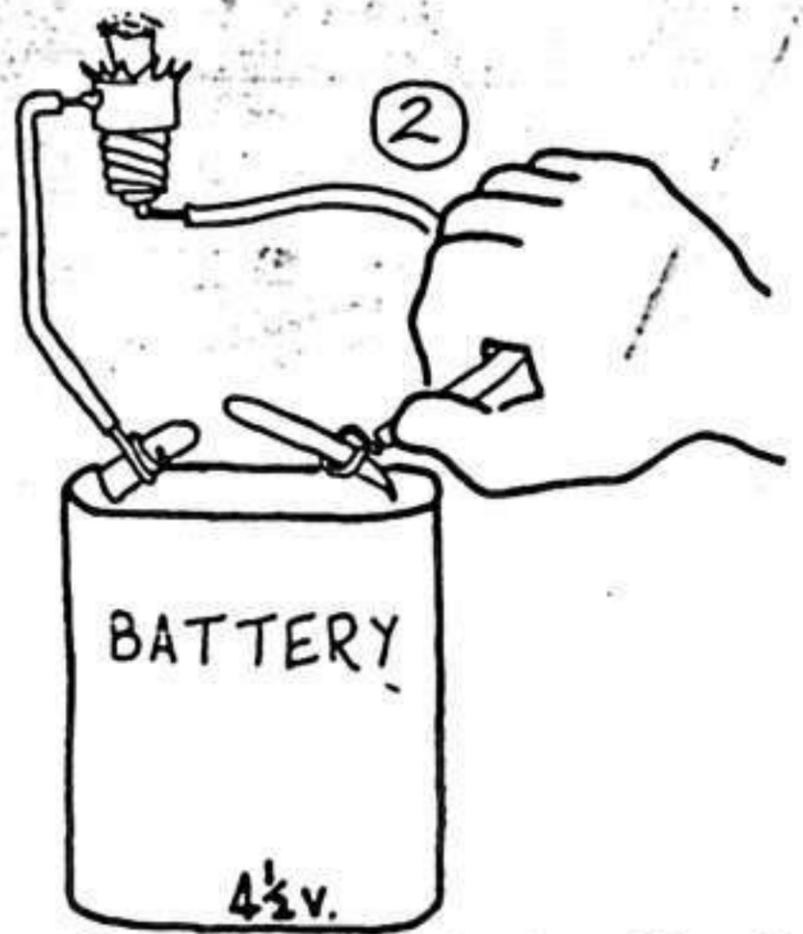


the open bulb igniter it is stuck on in the same way using nail varnish.

You can buy a small electric soldering iron, the solder, and the wire at a hardware shop. The shopkeeper will explain to you how to use them. Practise soldering until you do it perfectly. It is fairly easy to do.



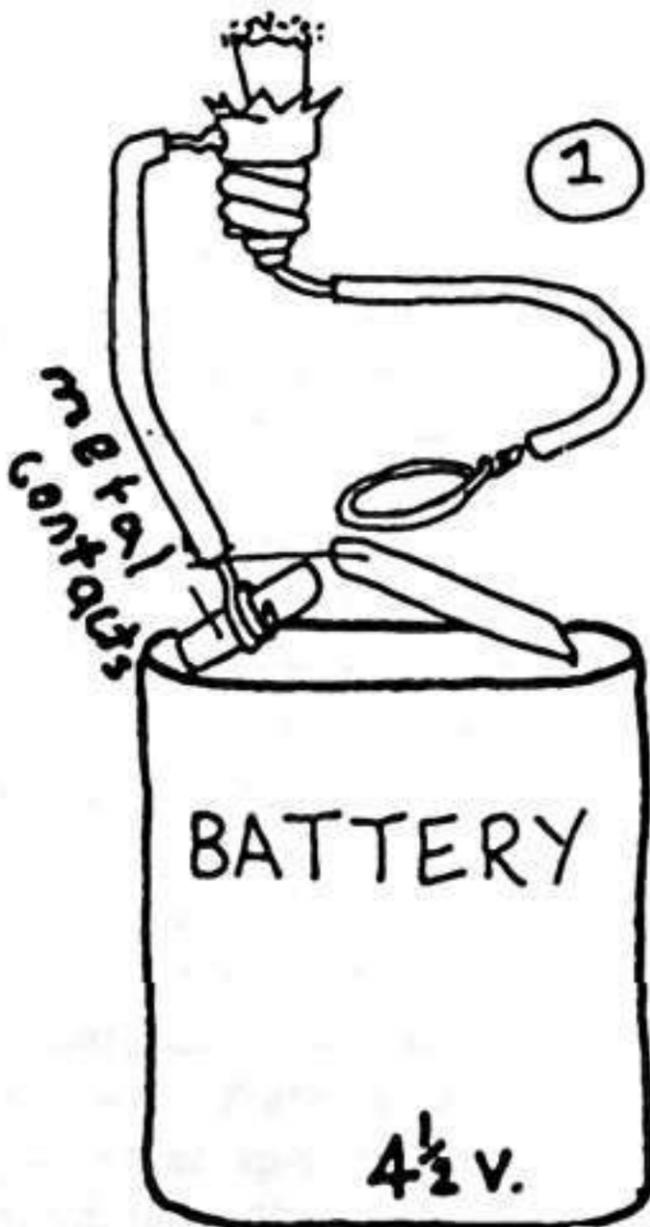
HOW TO CONNECT THE WIRES TO TEST THE IGNITER.



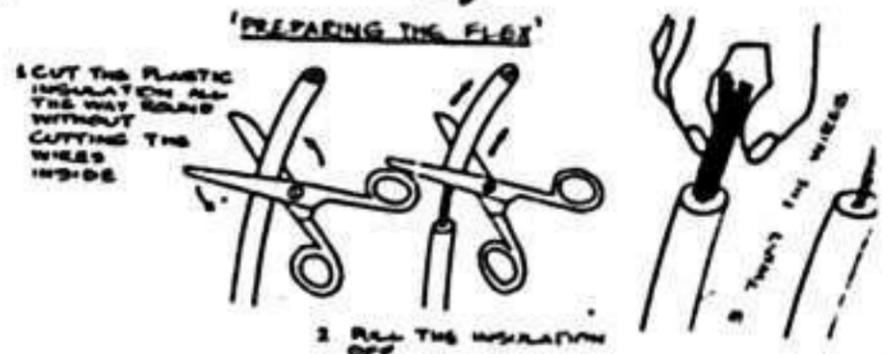
volt or 9 volt battery by touching the leads to the metal contact tags or points on the top (terminals). When both leads are connected to the battery, the filament will glow, causing the incendiary mixture to flash. The igniter can only be used once!

HOW IT'S DONE

'WIRING BULB'



Connect the wires you have soldered onto the bulb to a 4 and a half volt, 6



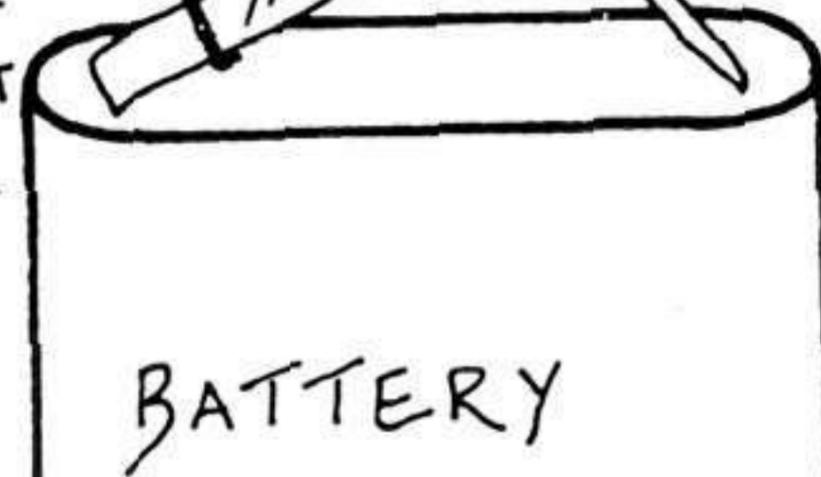
HOW IT'S DONE

IF YOU CAN
SOLDER THESE
JOINTS

MAKE LOOP, SLIDE
OVER CONTACT.

EVEN
BETTER
CONTACT
WILL BE
MADE.

METAL CONTACTS
(TERMINALS)



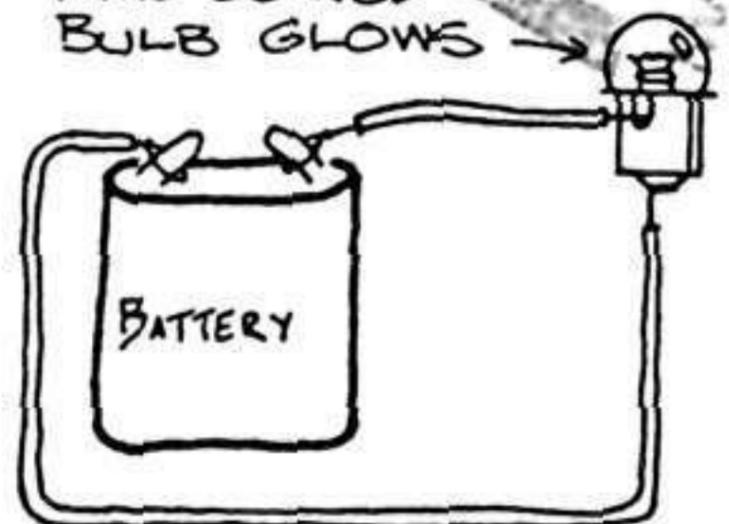
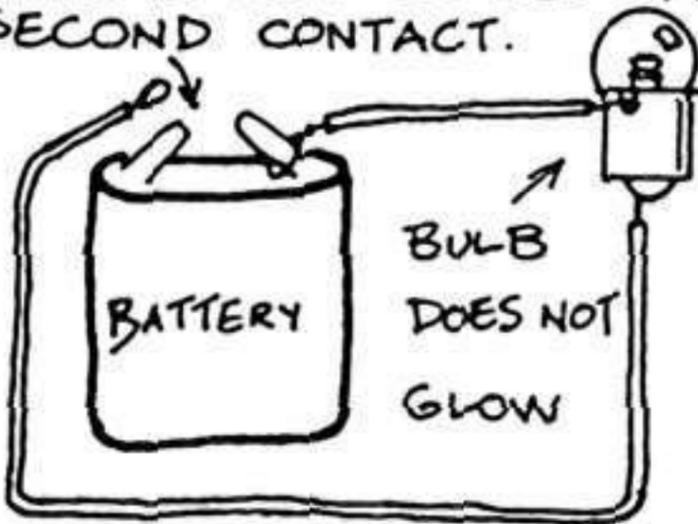
'WIRING A BATTERY'

PRIVATE BAG
BELLVILLE 7530
TEL: (021) 959 3410
FAX: (021) 959 3411

HOW IT WORKS

WIRE IS NOT JOINED TO
SECOND CONTACT.

WIRE JOINED -
BULB GLOWS

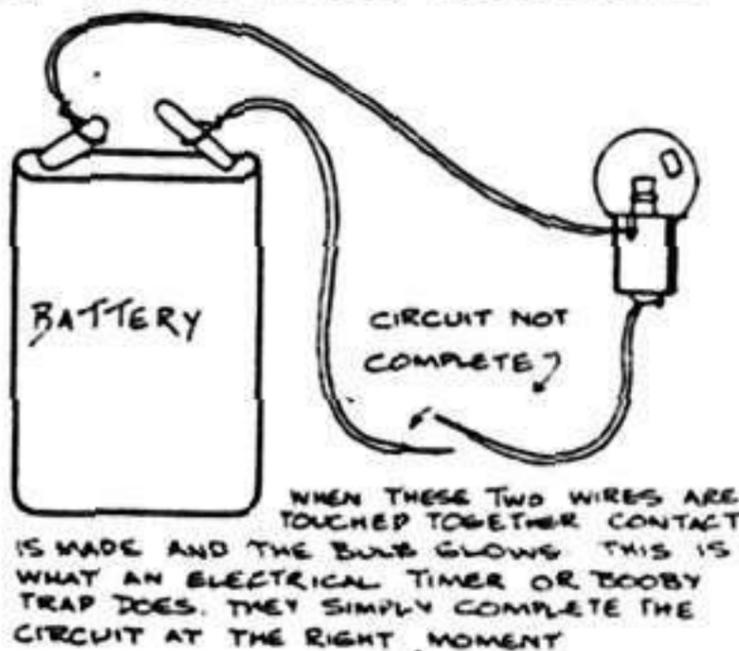


1. CIRCUIT NOT COMPLETED.

2. CIRCUIT COMPLETED

'CONNECTING THE BULB'

AN ELECTRIC CIRCUIT



WHY THE BULB WILL GLOW.

The light goes on when the electric current from the battery runs along the wires, through the bulb and back to battery. Its path is called a circuit. If the cut wires touch, the circuit is complete and the bulb wire will light up.

NEXT ISSUE: How To Use An Electric Igniter.