Making an Electret.

The complete article that was to have been placed at this site I have accidentally destroyed.

I think the main points that I remember are reproduced below.

If some one can give me additional information in construction of the same please send to my email address below and I will add to this web site for the enlightenment of others.

It seems that the Japanese knew of them before world war two and were using them in their telephones during the war.

Electrets today are used in modern tape recorders for microphones and to a limited extent in flat wall loudspeakers that were popular some time ago.

Many materials can obtain a surface electrostatic charge and when then come in contact with another material the charge is either changed or neutrallized.

However there are certain materials that will replace that charge without addition current charge,

If I can remember sugar crystals are one but don't quote me on that maybe someone more knowledgable than myself can send me a complete list.

Construction

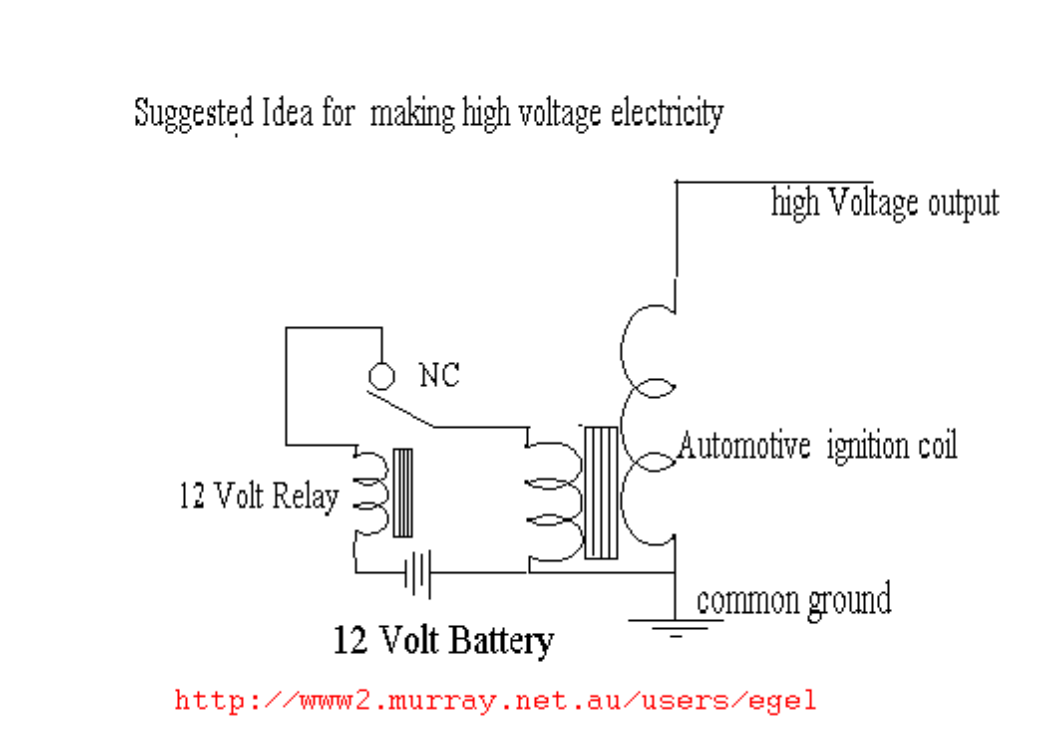
One material is called lucite and a electret can be made in the following manner.

It seems the action of electret is formed when a suitable material is in a molten state and under the influence of an electrostatic and then left to cool under the influence of said electrostatic field.

Making One

To construct one you will need to do the following.

First you need a source of High Voltage electricity and a diagram shown below could be used although having it being transistor driven could be an improvement on the device shown



Another good source could be from the back of the HV circuit of a black and white television receiver

(but be carefully as this extremely dangerous and should only be tempted by someone who knows what they are doing.)

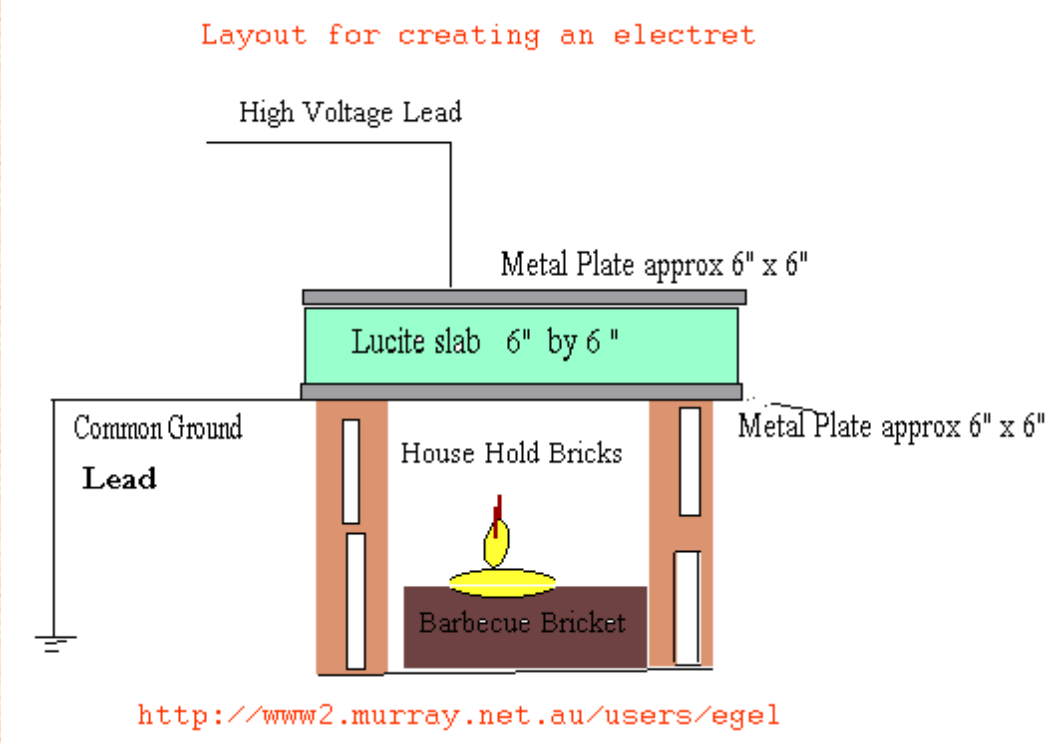
Taking high voltage from a Wimshurst machine or a Van de Graaf machine may also prove suitable.

Next you will need to cut a sheet of lucite 6 inches by 6 inches about a quarter of inch thick, if I can remember correctly.

You will also need two thin sheets of aluminium cut to 6"x6" also

Two house hold bricks and a good heat source such as a barbecue bicket.

Arrange all components as per diagram below



Light the bricket and then turn on the High Voltage Supply. and keep it going until The lucite is in a molten state and until the brickete is completed finished burning

Turn off High Voltage source and then carefully remove the two metal plates with the lucite and completely wrap it in metal foil and store for two weeks in a suitable storage area.

(Please note

Do not at any time allow your finger to short out plates as a nasty electrical discharge could or will occur)

After this time if the process has worked you should have an electret that will give a high voltage discharge,

Connect a piece of joined insulated wire to each plate and then by disconnecting from the two metal plates a spark will be given off

After a suitable time period (seconds) you will be able to repeat this step again and again.

To help you keep the electret working when you have finshed experimenting with it ,keep it wrapped in foil as before.

An interesting observation and by no means confirmed is the following observation made by a visitor who was

able to see to the Swiss ML machine working **(see article from main index)**

Claimed that the disks were made of persplex or could be lucite type material .

That one disk disk described as the earth plate had metal sectors mounted on both sides of the disk [something not alway mentioned on articles describing the invention]

I am suggesting that one of the actual disk described as the earth is a set of 50-60 electrets mounted on a single disk and some how are discharged in sequence and are allowed to recharge before coming into the next discharge point. when the disk is spun at suggested speeds of 50 to 60 revolutions a second.

see the diagram below