

OBJECTS, POWERED BY HIGH-TENSION

Some explanation.

Considerations for the objects:

Can be publicly shown with minimal supervision.

Safe, even for children. Vandalism excluded.

Stable enough for permanent use.

Little power, watts, not kilowatts. High power and high-tension is asking for fires or explosion of condensers.

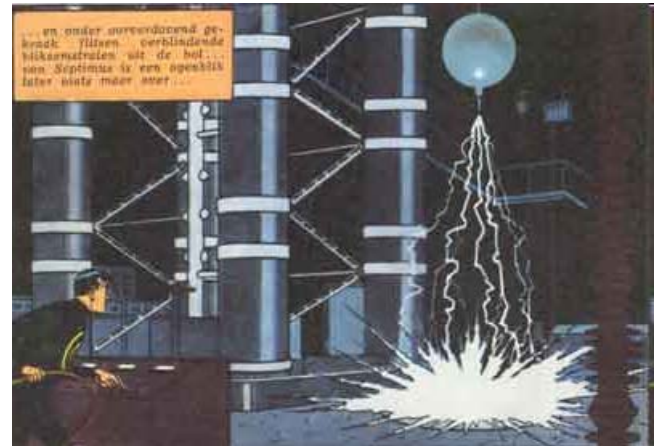
Preferably glass or stone or ceramics for isolators. Plastics can be very good insulators, until creep currents destroy their chemical bindings, carbon is formed, and then its a conductor and burns.

You won't find a Tesla-generator in this overview.

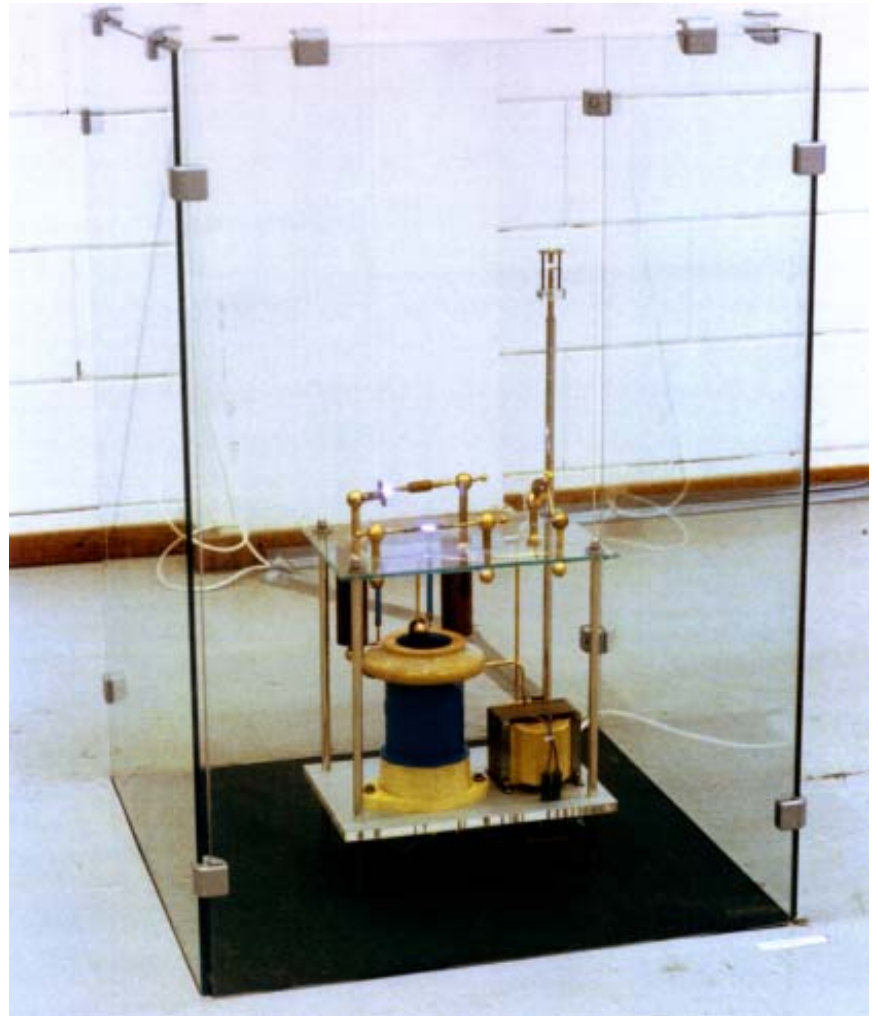
The desire to create works like this began in my younger days while reading comic books of Edgar P.Jacobs..

From *The Yellow Sign*:

"and with ear-splitting cracks blinding lightning came out of the globe.. a moment later nothing was left of Septimus."



TOUCH ME NOT



TOUCH ME NOT

Quietly, the intricate machine sits
waiting in its glass box.

Now the floor vibrates from your
footsteps.

You are blinded by the fat, burning
spark appearing between the elec-
trodes, the sound like a pistol-shot.

Children jumping up and down in
order to keep the apparatus working.

In the box is a ten kilovolts transformer, some condensers and the spark-gaps.

The sensitive motion detector is on the pole. As vibration is detected, for a few seconds the system is switched on.

The condenser (0.05 uf) is DC charged and discharges over the spark-gap. Depending on the (in)stability of the floor, it should be able to detect people's footsteps. In most situations this is too much, since the apparatus is then constantly working.

The sensitivity is adjustable. Ideal is when the machine works if somebody stamps forcibly on the floor.

Dimensions: 100 x 60 x 60 cm.



Touch me Not in action during the Magiorama fair in the city Groningen (NL). Due to the 20.000 visitors in 14 days the machine did work nearly continuously.

SPARK-PENDULUM

Sitting relaxed in a chair, sunk in light meditation,
your eyes will follow the small movement of the burnished steel ball,
more and more forgetting time
by listening to the whisper of the energy discharge.



The weight - a 10 cm massive steel ball - moves between two electrodes, each carrying a voltage of 10 kilovolts.

At each end of its swing it nearly touches the electrode.

The high tension creates a spark-discharge between the electrode and the ball, creating a current flow in the suspension wires. The resulting Lorentz-forces keep the pendulum going.

The case is hardened glass.

Periodicity: once a second.

Dimensions 120 x 30 x 20 cm.



FOR THE LOVE OF TECHNOLOGY

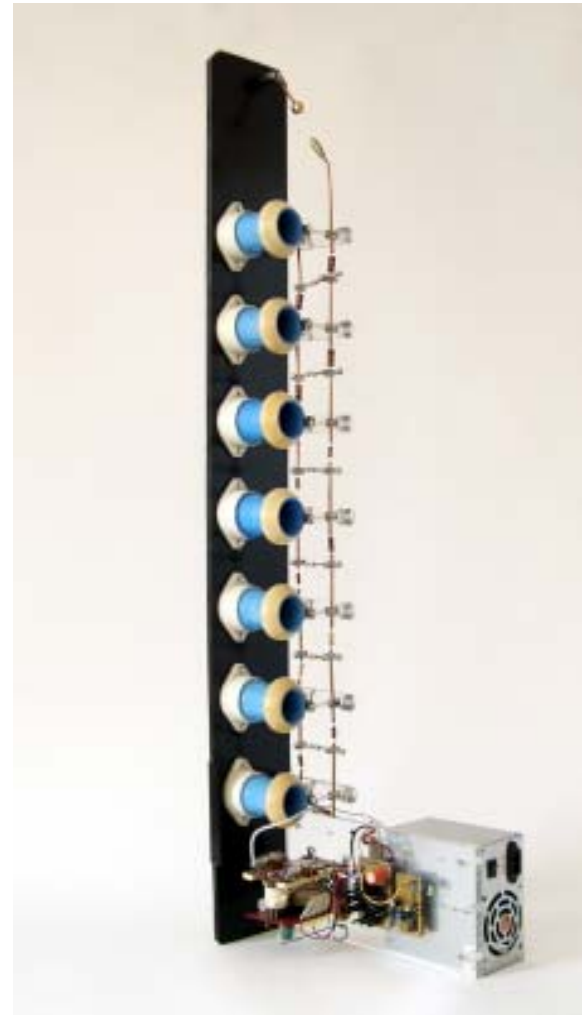
My version of the Marx-generator, a machine to produce a short duration high tension pulse.

Each unit is charged to 11 kilovolts. When fully charged, the spark-gaps break down and the voltages are added, delivering ~ 70 kilovolts to the big , upper spark gap.

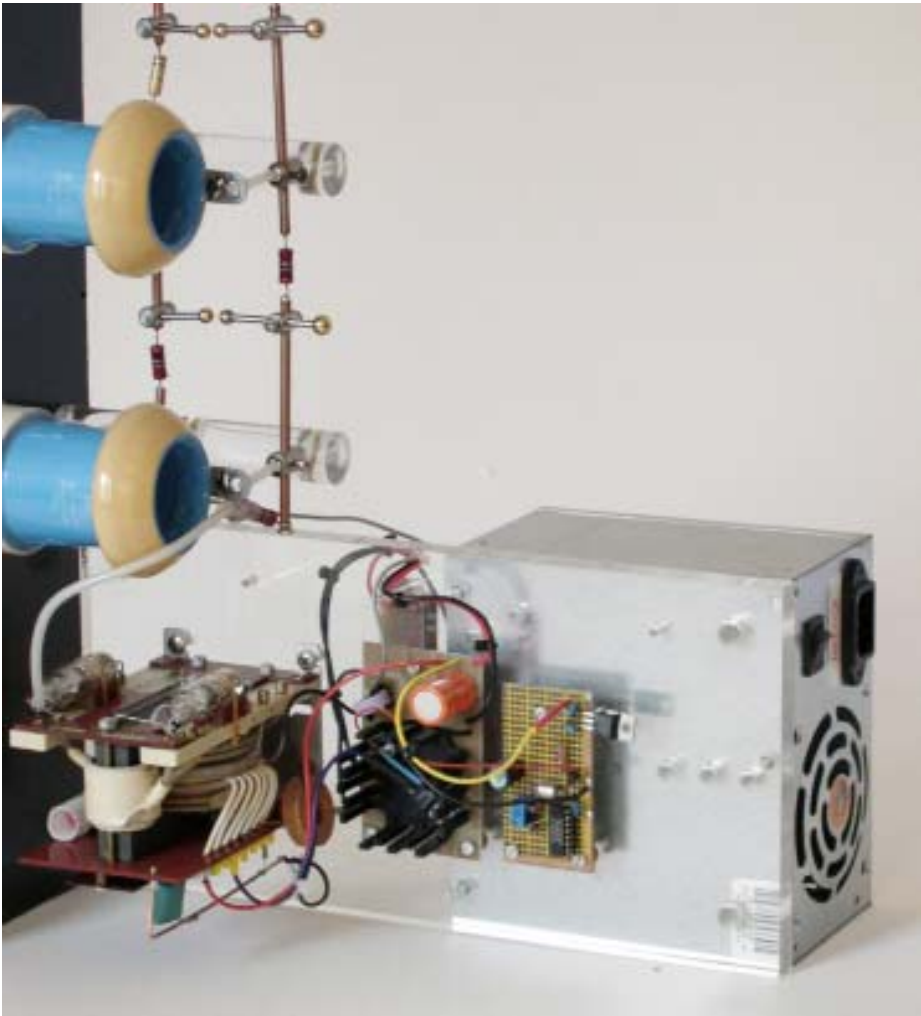
Bang!

Buzz words, spooking my head while building it:

- sparkgap
- flashover distance
- tension fields
- isolation distance
- field strength
- capacity
- dielectric value
- charge time
- pulse time
- corona discharge
- corona forming
- microsecond
- nanosecond
- coulomb
- electromagnetic pulse



FOR THE LOVE OF TECHNOLOGY



Power supply and 11 kilovolts generator.

FOR THE LOVE OF TECHNOLOGY

When active, the machine produces a spark every 2 seconds.
The typical build is to prevent sparks “jumping over”.
When on exhibition, the machine needs to be placed in a glass show-case.

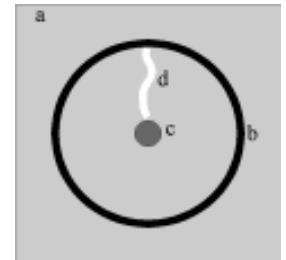


Condensers and spark gaps

DEEP DOWN

A man-height black tube stands.
It is the source of the hissing and sputtering sound you are aware of.
When you look down into the tube, you see the circling, turning spark below.

Down the tube is the high tension generator, a modified car ignition.
Electrodes of the discharge are on a small stone on top of the generator in the focus of an acoustic mirror.
The tube is too high to reach the spark with your extended arm.
There is some white cloth on top of the tube to warm your face.



- a. stone*
- b. copper ring electrode*
- c. small copper ball*
- d. discharge*

DEVICE TO MAGNETIZE WATER

Warning.

It is not advisable to place any metals inside the apparatus because of the high voltages inside and the strong forces that the magnetic field would generate on any metals (especially iron).

Opening the apparatus should be restricted to certified technical personnel.

The magnetic field could have negative effects on the correct working of pacemakers and sensitive electronic equipment.

Persons with such devices are **STRONGLY ADVISED** not to loiter near the device when it is working.

Intended use.

This device delivers a strong, momentary magnetic field, concentrated in both coils.

By placing two water filled test-tubes in the device, they will be centered in the coils and therefore the water will be strongly magnetized.

The magnetic pulse can be repeated on demand, to effect a still greater magnetization of the water.



Usage

Magnetic treatment of water or watery fluids.

Left tube: magnetic north Up.

Right tube: magnetic north Down.

THE URSOUP PROJECT

Some years ago, when I was twenty, I read about a scientist * who had created an experiment in which he tried to copy the development of life in the primeval ocean, to prove his theory.

His idea was that many lightning-strikes on the surface of the ocean had been a deciding factor in the origination of those self-reproducing molecules which are seen as the building-blocks of life.

Jealously I read that he had -for weeks on end- caused an electrical discharge on the water-surface. Some time ago, watching Discovery Channel, I saw how the experiment was redone by a Japanese scientist.

Redoing scientific experiments is necessary, scientist believe.

My object Ursoup is also a repetition of this experiment.

I use my own interpretation -just like a scientist- but I don't keep the experiment to myself, everybody can participate and help the research along by looking in the microscope to see if the life has yet developed.

This experiment has now been done five times.

* Miller-Urey experiment, 1952



THE URSOUP PROJECT

Construction of iron wireframe on three legs which carry the glass bowl and the electronics

Bowl: 25 x 10 cm, airtight closed, contains the soup base. Electrodes and air hoses in the bowl's cover.

High voltage: souped-up car ignition, about 120 pulses/second, ca. 18Kv.

Microscope: mounted outside against the bowl.

Agitation: Every few seconds the bowl is wobbled a few degrees.

Air circulation by a small pump.

Defeat switch disables high-voltage and agitation, turns on microscope light.

Notebook of reports hanging down on a chain.

Dimensions: 80 x 80 x 180 cm

Power consumption: about 100 watts (interactive)

