

# THE Gentleman's MEDIUM-SIZED HADRON COLLIDER

How to build a device that will answer some of the big questions of the Universe in your garden shed or garage

by William Walker

Gentlemen! At something of a loose end now the cricket season is over? Washed the car and manicured the lawn to within an inch of its life, and now find you've nothing to occupy the old grey matter this weekend? And to top it all off, the good lady wife is away visiting her Mother in Hull, and there's no-one about to cook your lunch!

Well, how about answering some of the big questions of the universe? What about seeing how matter behaved a tiny fraction of a second after the Big Bang? Not too bothered? Thought not ... but then again, what about firing up the old steam boiler and smashing a few lead nuclei together? Now, that's more like it, now isn't it, sir!

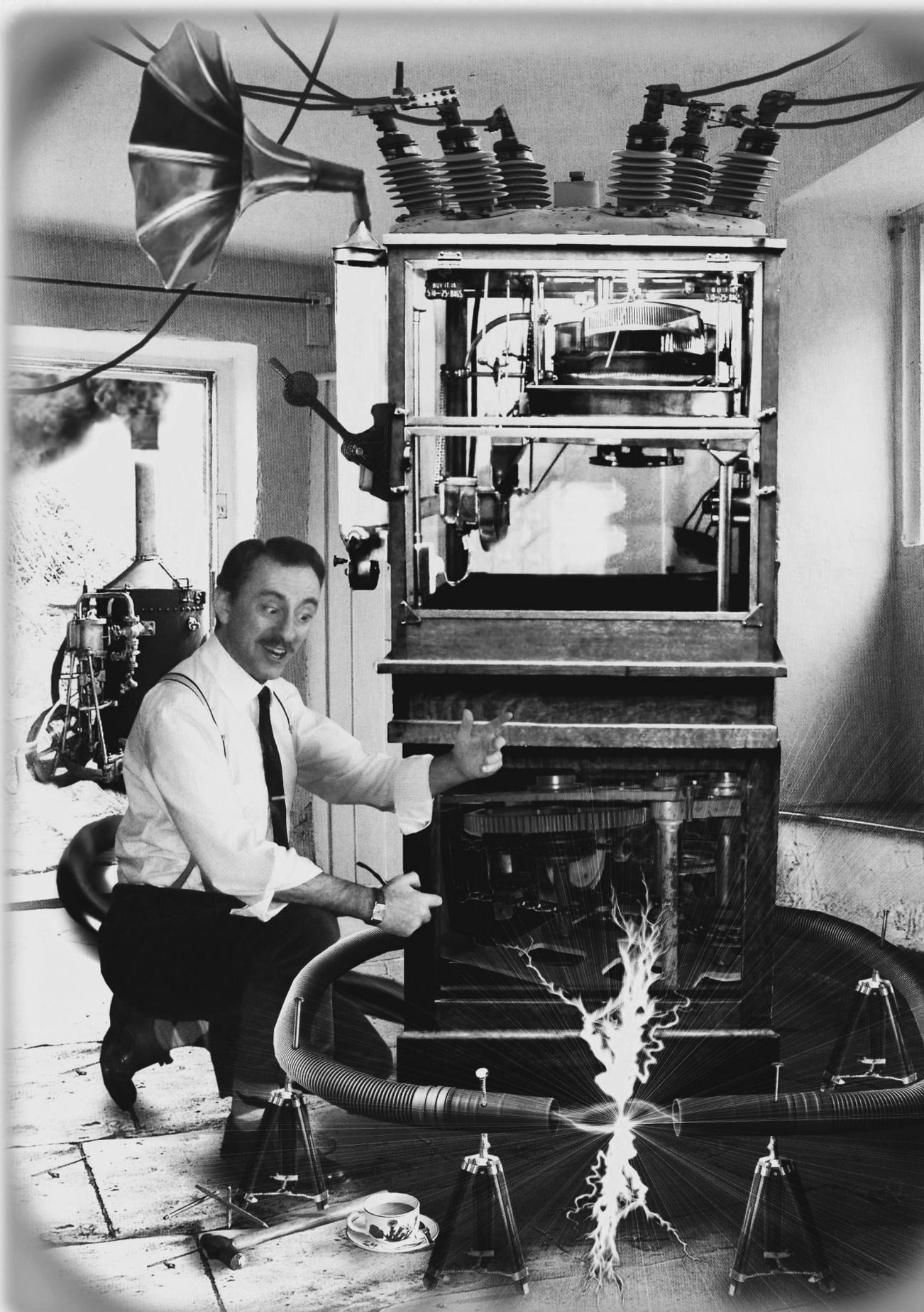
If you've ever put a shelf up or two, making your own Hadron Collider couldn't be simpler, with these easy-to-follow, step-by-step instructions. Right then, strip off the old tweed jacket, roll up the shirtsleeves, square that knot in your tie, and let's get started!

#### YOU WILL NEED:

- One (1) steam engine.*
- One (1) cwt. nutty slack – for the burning of.*
- One (1) small tin of hadrons; or, failing that; two (2) 2H lead pencils (not graphite) – for the colliding of.*
- Pipes (4) bent billiard, churchwarden etc., – for the contemplation with.*
- Four (4) various tins of tobacco (2oz) – for the relishment of.*
- One (1) pint bottle of Wainwright's – the whistle, for the wetting of.*
- One (1) ball of hairy string – for the tying with.*
- Three (3) rolls of sticky (or Sello) tape.*
- Length of hose from vacuum cleaner.*
- One (1) Stapler + staples.*
- Two (2) grease guns, sans grease.*
- One (1) large hammer.*
- One (1) pound of six-inch nails.*
- One (1) flat-head screwdriver (just in case).*

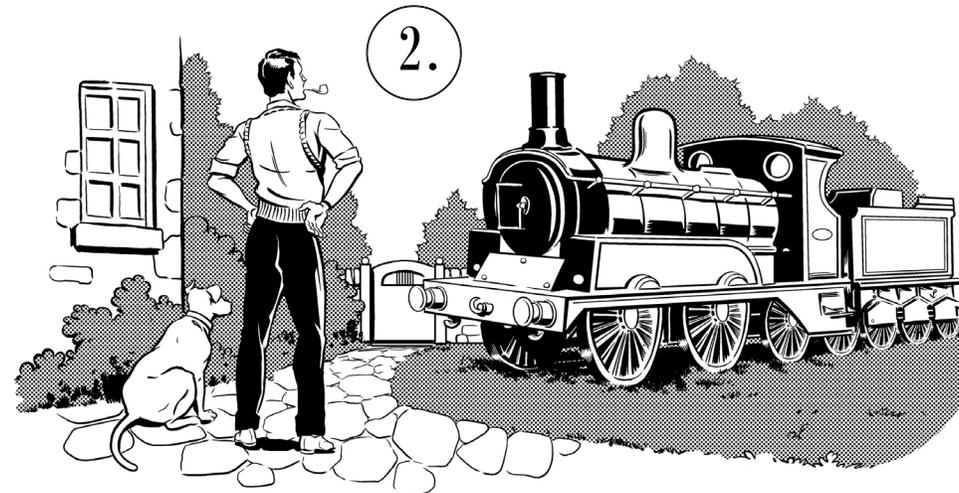
#### SAFETY EQUIPMENT:

- One (1) medium-sized tie clip.*





**STEP ONE**  
Stoke the boiler and get it, and your pipe, lit and fuming. While you are at it, put the kettle on.

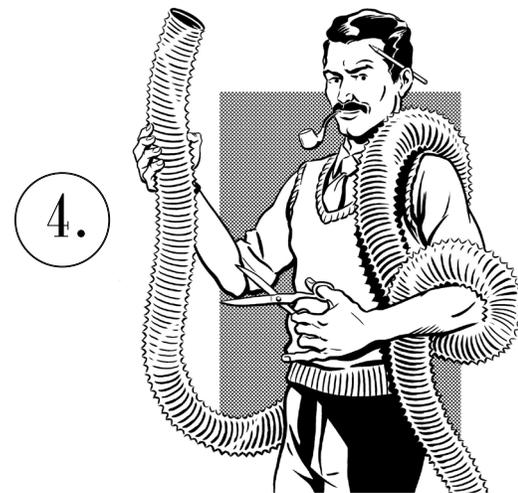


**STEP TWO**  
You should already have several parts of an old steam locomotive in the back garden, so nip out and bring in two pressure release cylinders, the bigger the better.

While the tea is brewing, contrive to connect your steam boiler to the two cylinders with the hairy string and sticky tape, taking care that the joints are sound.



**STEP THREE**  
Remove ends from grease guns. Nail the grease guns, sans grease, one on to each of the pressure release cylinders. Move purposefully back into the house for your second pipe of the day (possibly the churchwarden and the Erinmore Mixture). Brew tea. Consume with digestive biscuit and gusto.

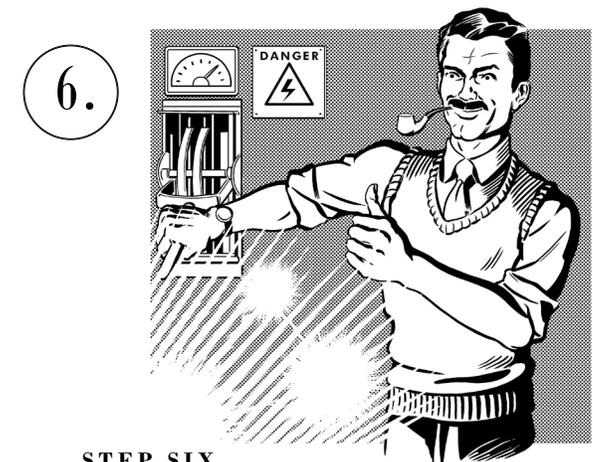


**STEP FOUR**  
Into each of the grease guns, sans grease, insert a modicum of hadrons. Fresh out of hadrons (and who isn't?) and pushed for time (and who isn't)? Then do as I do and substitute the lead of a 2H pencil (not graphite). Well, there are surely some lead nuclei in a lead pencil, aren't there? Cut the vacuum cleaner hose in two (later to be invisibly repaired with sticky tape, to ensure the trouble-and-strife is none the wiser). With the stapler, affix one half of the hose on to each grease gun. Seal with tape.



**STEP FIVE**  
Arrange the sections of vacuum cleaner hose in a circle, so the open ends are opposite each other and approximately six inches apart. Nail them to the floor. Move on to pipe number three (possibly a bent briar and a wad of Brown Study).

Open the bottle of Wainwright's beer, pour, allow to settle, drink in one. Position oneself approx. six inches from the hose ends. Don't worry, it's quite safe. If you're concerned about safety, simply squint your eyes; this should help in the event of flying detritus.



**STEP SIX**  
Throw the pressure release lever and send the lead pencils hurtling towards each other. Look on and gasp, as the very heart of 'matter' is revealed. You may even catch a glimpse of the Higgs Boson, in which case you have made scientific history. Lean back and reward yourself for a good day's work, by packing your fourth pipe of the day with a goodly wad of Old English Curve Cut. **Well done, old Chap!**