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"HERMES" GETS TO WORK.

Harwell scores another triumph with "Hermes", a device which can seperate radioactive isotopes. Isotopes are atoms which are chemically identical with their sisters, but have a different weight. Seperating them is a major task anyway - but when they're radioactive as well, very special precautions are needed. A scientist gives instructions to a mechanic working inside the heavily screened seperator.

Operation of the machine is controlled from outside. This is the water-cooled accelerator, from which a stream of electrically-charged plutonium atoms is to be projected at high speed through a strong magnetic field. The 64-dollar question - how to sort out the isotopes from the stream. This model shows the curved path along which the magnetism bends the stream; at the far end, a receiver can be adjusted to catch the flying atoms. Because their weight is different, the isotopes follow a slightly different path - so you place your receiver in just the right spot to trap them, and there you are.

What's it all for? Plutonium is a vital atomic fuel - and Hermes can give our scientists information which will help them to power the industry, the ships, and the aircraft of the future.