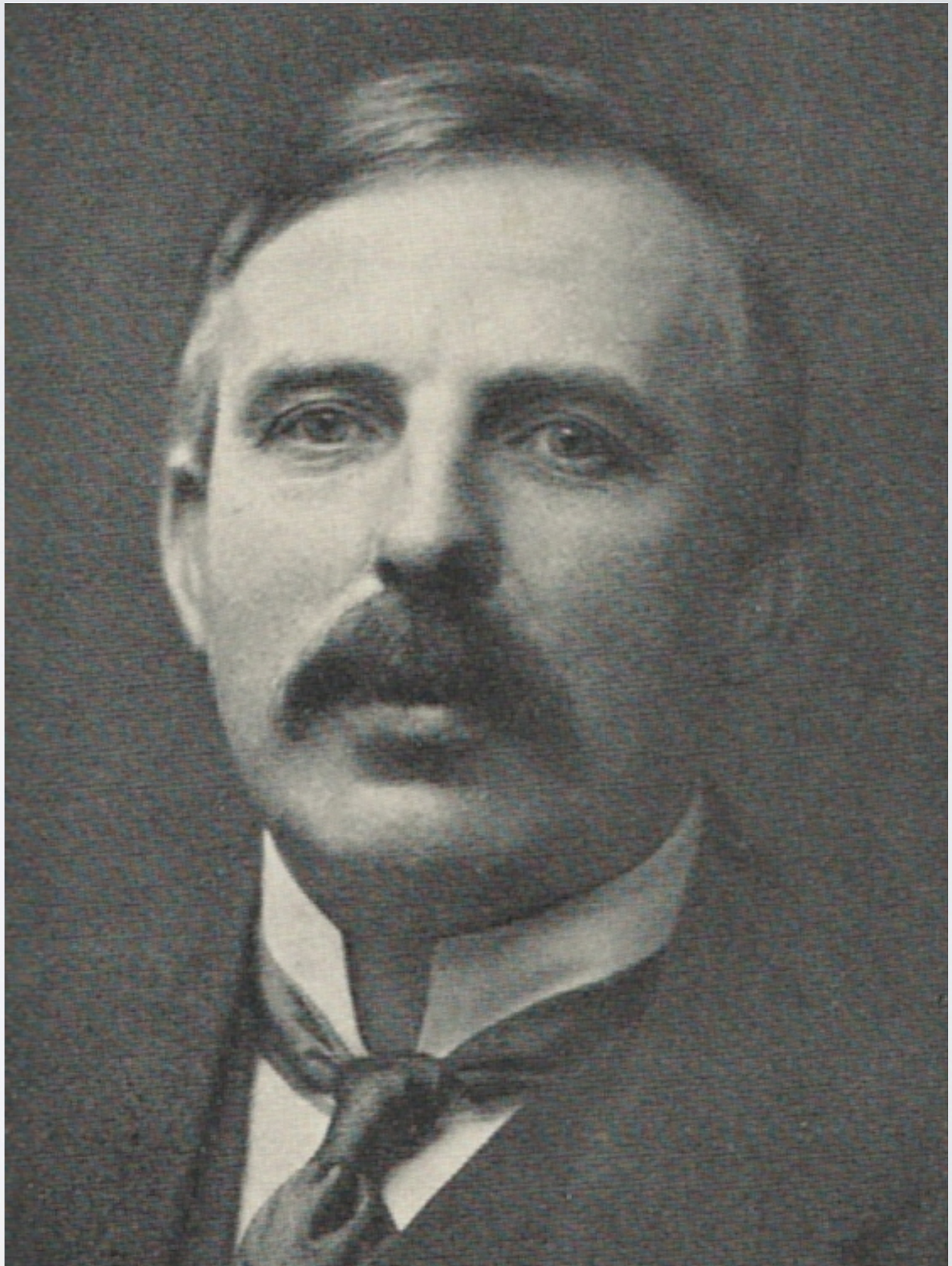
Glimpsing the fly in the Cathedral

Marking the centennial of the first description of the atomic nucleus by Ernest Rutherford

Professor Brian Cathcart, Kingston University London

PANIC11 26 July 2011

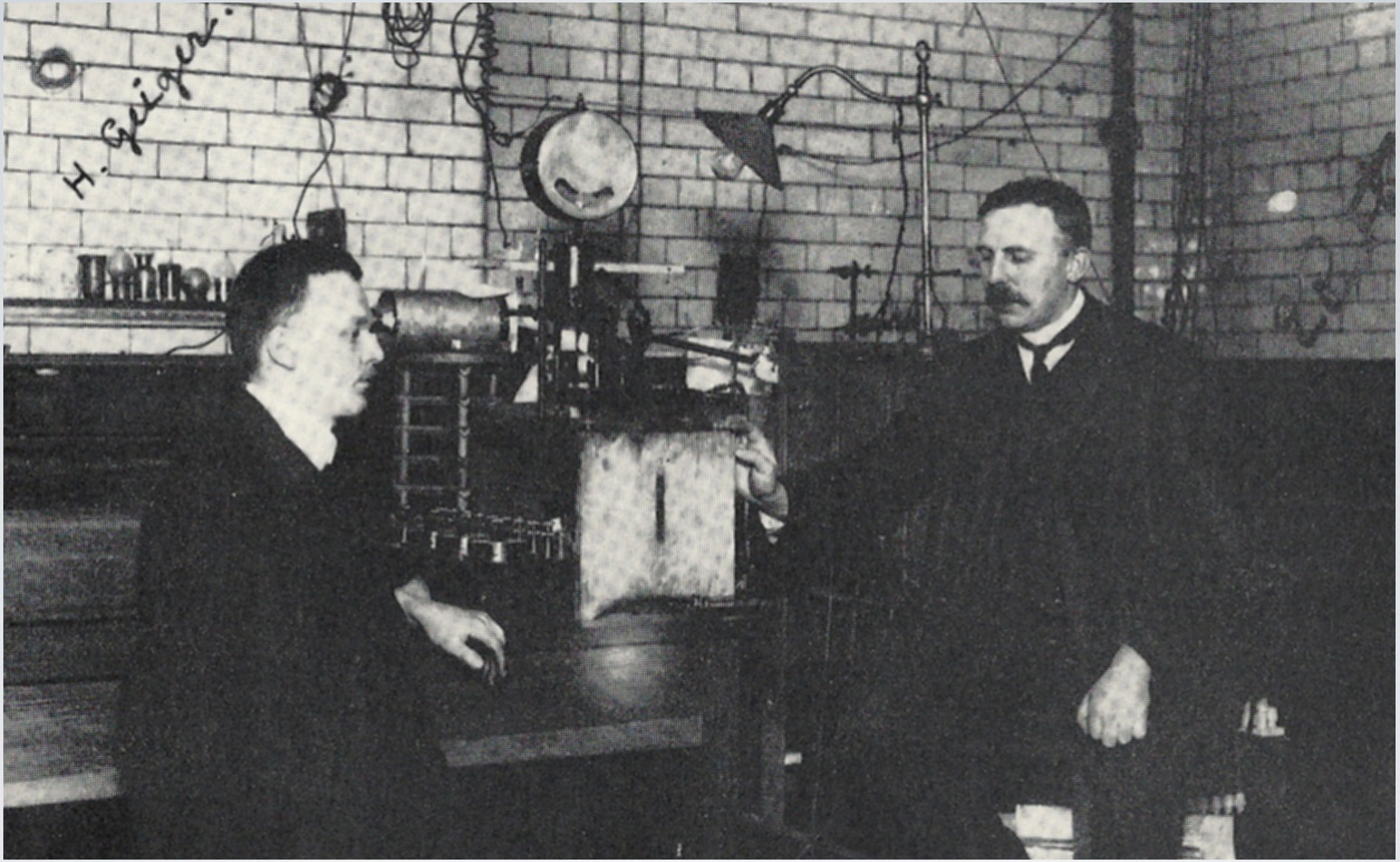


Rutherford in 1910

Source: N. Feather Lord Rutherford

‘… a completely new idea had come in, which was going to make things quite different …’

- James Chadwick



Geiger (left) and Rutherford, probably in 1909,
with an ancestor of the Geiger counter

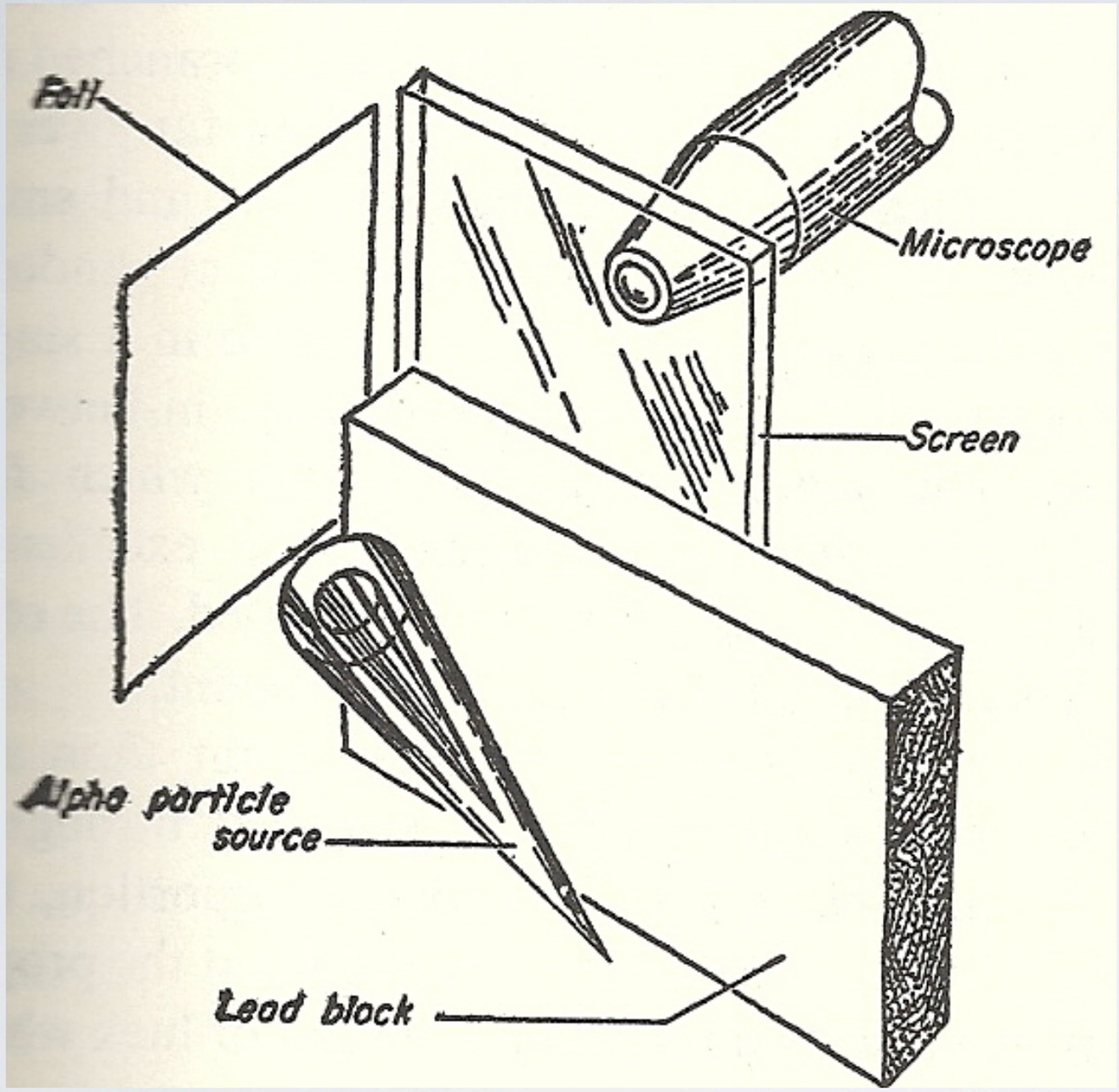
Source: AS Eve *Rutherford*

Ernest Marsden, from a laboratory group photograph of 1913

Source: AS Eve

‘Why not let him see if any alpha particles can be scattered through a large angle?’

- Rutherford



Marsden's apparatus

Source: A Romer *The Restless Atom*

It was as if ‘you fired a fifteen-inch shell at a piece of tissue paper and it came back and hit you’.

- Rutherford

The Rutherford home in Manchester.

Source: Dr N Todd

‘One day Rutherford, obviously in the best of spirits,
came into my room and told me
he now knew what the atom looked like.’
- Geiger

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Arthur Eve - ‘You are a lucky man, Rutherford.
Always on the crest of a wave.’

Rutherford - ‘Well, I made the wave, didn’t I?