



"No good showing me a woollen singlet... they're too irritating"

"You could wear *this*... it's ROSLYN-the Delta finish stops the tickle"

**THIS IS WHY**

**NON** - Delta finished . . . fibre of wool, showing the sharp-edged "scales" found in all natural wool, that cause irritation in ordinary underwear.

**ROSLYN**

**DELTA** finished . . . fibre of wool with irritating scales removed, and fibre smoothed to silky softness by the exclusive DELTA Finish.

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Many people firmly believe that they cannot wear wool. . . but that is before they try Roslyn "Delta Finish" Underwear. "Delta Finish" stops the tickle. It gives a smooth, silky surface which cannot irritate. Every Roslyn garment is treated this way. Each is designed and finished to suit the most exacting taste. Ask to see "Delta Finish" Roslyn. . . Nos, 60, 79, 85 and the new No. 55. Compare it! Wear it! And you'll always wear wool. . . Roslyn wool.

Made in New Zealand from N.Z. wool, by New Zealand labour. The wear is there.

**ROSLYN**  
DELTA FINISH UNDERWEAR



was intuitive rather than reasoned.

"Nature," he would say, "is not like that," referring to mystical ideas.

An imaginative man, with a gift for metaphor and language, he distrusted imagination. He said: "What is wanted for progress are not seemingly clever or highly imaginative ideas about Nature, but the knack of finding, so to say, God's idea of Nature."

#### **A Practical Scientist:**

He was not a pure scientist-for-the-sake-of-science; he kept his science free from the entanglements of nationality and excessive patriotism, but never disdained interest in the application of scientific discovery to ordinary life, and he did much to help the Government Department of Industrial and Scientific Research.

All in all, he seems to have been a noble and a typical figure of the liberal era in modern Europe; and since he dealt with facts and observation of facts and the logic of scientific investigation, he was saved from the ignoble vagueness of liberalism in retreat and decay. Even at its best liberalism can be charged with a tendency to substitute uplift for reality, and too much uplift in the mental atmosphere can make one curiously indifferent to the things which go on. There is a touch, if not of the uplift, yet of the indifference in Rutherford, one of whose recreations—odd contrast for a scientist of his build—seems to have been the history of war.

#### **Loved By His Students:**

As a great man, he was evidently a first-class example of greatness. He was modest. He was unaffected. He was generous and friendly. He was enthusiastic and gay. He kept about himself always something of the New Zealand farmer—even to his voice. He was a very fine teacher and organiser, who inspired in his distinguished pupils and assistants much more than

respect. He was not age-bound or dogmatic, but tolerant and free in mind and constantly receptive:

"He found young research people indispensable to him, not only because it gave him better chances of working out a large number of problems, but also because, as he often said, the young students kept him young. . . He said that in research he always felt as if he were a young man, and his ambition and curiosity never slackened. . . He would never oppose new theories, as several other physicists did, simply because they were new."

#### **He Could Have Made Millions:**

Add to all this, that, as a true scientist, his ambitions did not include money ambitions. He had a brain which could have made millions, and without too much damage to his conscience, it could no doubt have earned him many thousands. Actually, after a life-time's work, and after discoveries which changed science and opened up enormous possibilities for mankind, he left no more than £7,402. He had less financial power than a coal-merchant or a bookie.

Allowing for the difficulties in writing such a life, which lacks the dramatic incident of the life of a successful criminal or an eminent dictator, or a general who has strategically brought about a million deaths, it cannot be said that Mr. Evans has written a book which in any way matches or even presents the greatness of Rutherford. It is not an original book. The long chapters which delve into nuclear physics will make scientists smile and laymen bored and bewildered.

However, radium does not cease to be radium if it is wrapped up in an old pair of trousers, and much of a great man of Rutherford's height and weight and breadth would remain were the wrappings never so inept.



### The Cambridge Period:

He was a brilliant undergraduate in his New Zealand University, and in 1895 he entered the Cavendish Laboratory at Cambridge and began his atomic research under Sir J. J. Thomson. From this point Mr. Evans's narrative begins to weaken and become dry. Biography with the best of subjects is a tricky affair, and a scientist is one of the worst of subjects. A scientist's biography is his childhood—most of it inaccessible, except in a few anecdotes—and his science. It is written in reports, learned proceedings, scientific periodicals, text-books; and Mr. Evans would have been wiser not to attempt to follow Rutherford's researches and discoveries inch by inch through the years in Canada, Manchester and Cambridge. He could have given us—but no doubt it would have been an article rather than a full biography—some clearer idea of the kind of man that Rutherford became and some idea of his attitude on the problems, not necessarily of physics, but of society and life.

Rutherford, after all, like Galileo (the statement was made by Niels Bohr, who was one of his pupils), was "a scientist who left science in quite a different state from that in which he found it." When he had finished with physics, the concept of matter

had changed, and a chair or a table was no longer the chair or table that we used to know. His work was revolutionary; and it was one of the fairly few things which distinguish the time and events we are living in from the dream of a man-killing loony.

### Distruſted Mystical Ideas:

When such a man appears, we are entitled to be curious, I think, about the way in which he appeared, about the mutual activity of the individual and society which produced him; and we are entitled to be curious, not merely about his discoveries or his scientific technique, but about what kind of a man he was. I like to know, about someone like Rutherford, what were (i) his world-view, (ii) his politics, (iii) his religion—and I cannot say that Mr. Evans satisfies me. He is too busy recounting formulae, and quoting from journals and addresses, to remember for more than a second or two that Rutherford was also a man, and not only an investigating or a calculating machine. Actually, of course, world-view is politics and religion, and Rutherford appears to have been a Liberal, and a non-mystical naturalist:—

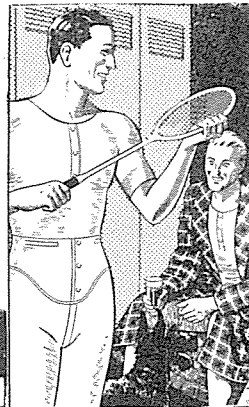
"In physics he had little use for mystical ideas, although it was often claimed that their origin lay in his own work. He would not argue, however, for his sense of physical reality



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EX LIBRIS**Rutherford of Nelson****New Zealand's Great Scientist  
An Entertaining Biography**

**A**S a boy in New Zealand Ernest Rutherford was fond of pigeon shooting. He would ride out into the bush before dawn, to a spot where the pigeons would be flocking in to eat the berries on the miro trees.

These trees are high, and at first Ernest found his sport exceedingly poor owing to his possessing an inferior gun and ammunition. Eventually Ernest hit on the idea of always firing just at the moment when they were about to alight, their wings being then fully spread. This method proved highly successful, and on one occasion he claimed a bag of 16 birds.

Scientific investigation is the power to analyse any problem, whether the shooting of pigeons in miro trees or the structure of the nucleus of the atom, and there is evidence enough that Rutherford had this power from childhood. His childhood was perfect. He came of self-reliant and ingenious Scottish parents, who were settlers of the first generation. He was one of a large family. As Mr. Ivor Evans makes clear in the first pages of his book, "Man of Power: The Life Story of Baron Rutherford of Nelson, O.M., F.R.S." (Stanley Paul, 15/-), he was faced with problems from the start, problems of getting at birds' eggs, spearing eels, and catching trout.

**A Fortunate Boyhood:**

There are worse beginnings for a scientist than such a boyhood in the New Zealand bush. But Rutherford had luck. If first of all he had the luck of not being born in a South Ken-

sington square, he had also the luck of meeting the right men at the right time. If one's powers are directed and concentrated in extreme childhood, it is equally true that they are often misdirected and scattered during adolescence, and in New Zealand Rutherford might have been unlucky in his schools and his masters. But no. At his first school he got on well with a clever schoolmaster, who gave him—and it was important—a good grounding in Latin. At Nelson College he made friends with Mr. Littlejohn, the mathematics and science master. And when he entered Canterbury College, in 1889, he had the supreme good luck of finding an original, unorthodox teacher, who stimulated his wish to find things out and kept him from the safe path of text-book physics.

In the ordinary course Ernest Rutherford would have become a farmer. But it is clear he made up his mind for himself at a time when life, for most people, is still an uncertain mist on the horizon. After sitting for his scholarship to Canterbury, he was staying in the country, waiting to know the result.

One morning he was digging potatoes in the garden, when his mother came running out to him in an excited manner.

"You have won it," she cried.

"Won what?" asked Ernest, and then, realising that his mother meant the scholarship, he threw down his spade and said:

"That is the last potato I shall ever dig."