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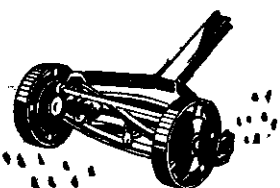
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"I Knew Lord Rutherford"

(A Talk in the Home Service of the BBC, by Sir Henry Tizard
President of Magdalen College, Oxford)

THE Right Honourable Baron Rutherford of Nelson, Order of Merit, Nobel Laureate, sometime President of the Royal Society, etc., etc., hereinafter to be called just plain simple Rutherford, as he was always known and always will be known in his greatness, was one of those astonishing geniuses who crop up now and then, at very rare intervals, and who seem to have been told a good many secrets of nature by a good fairy at their birth. Faraday, the real founder of the whole electrical industry, was such a man. Rutherford was very like Faraday in his scientific genius and in his simplicity; but he had in addition the power and opportunity to gather round him and to inspire many young men. I never worked under Rutherford myself; never shared to the smallest extent in any of his triumphs; I am merely one of many to whom he gave friendship and encouragement, and who admired and loved him. I am going to try to tell you something about him as a man; but as we cannot dissociate the man from his work, I must first remind you of what he did for science.

Three Great Events

There were three great events in Rutherford's life. The first was when, as a young professor at McGill University, Montreal, he proved that the phenomena of radio activity were due to atoms breaking up of their own accord, and turning into atoms of a different kind. This was a staggering blow to all preconceived notions about atoms, and it took a long time, and much hard work, before some older distinguished scientists accepted the new theory. The second was when, as Professor of Physics at Manchester, he proved that an atom must consist of a minute and very dense central core or nucleus of matter surrounded by electrons at a relatively large distance. This theory again completely upset all previous ideas, but has long since been well established and accepted. The third was when, as Cavendish Professor of Physics, he showed that atoms that did not break up of their own accord could be made to break up, and be transformed into other kinds of atoms, by artificial means.

But you must not think of Rutherford as a man who had a few brilliant flashes of supreme genius, though any one of these three main discoveries would have been enough to bring fame to a lesser man. The summer lightning of inspiration was always playing about Rutherford's head; wherever he was working there was always something happening, something new to see and to discuss. All his life he was a voyager through strange seas of thought; but not alone. He always had a willing and happy crew with him. He was a tremendous worker, always improving experimental methods. Meals were snatched hastily when he was in the middle of an experiment. On such occasions as one of his laboratory assistants said to me, "he would eat a pork pie in his fingers with any of us." And he was like a great barrister; never

content with producing a piece of evidence that would satisfy the most intelligent member of the jury, but piling proof until the whole court was convinced of the truth.

Big in Every Way

He was a big man, big in every way, light blue-eyed, thick-set, and loose-limbed. I said that in his scientific work he was like Faraday. In some other ways he was like the famous Dr. Johnson. He came to dominate the scientific world, just as Dr. Johnson dominated the literary world nearly two hundred years ago. Like him he had a booming voice, a loud laugh, and a tendency to shout other people down in argument. He had the same boisterous spirits, but more sustained; the same love of folding his legs and having his talk out; the same robust and almost devastating common-sense, the same power to clear his own and other people's minds of cant. He had a habit, attributed to other great men, of being able to go to sleep for a few minutes at any time of the day. He might look in to see me, start an animated conversation, then say, "I think I'll have a bit of sleep," fall soundly asleep for ten minutes, and then wake up suddenly and go on with the conversation where he left off. He had no false dignity and no vanity. He judged men on their merits, and not by their positions. If the laboratory boy was a good laboratory boy, he was Rutherford's friend. Anyone who was trying to do a job well and honestly had his respect; he had no use for anyone who was pretentious. I remember his saying to me one day: "I've just been seeing So-and-So" — mentioning a man well known in public life! Pause—and then a puff of his pipe—and then: "Nothing much to him, is there?" And the fact is there wasn't.

It was only by the greatest piece of good luck that I got to know Rutherford just over 30 years ago. It happened in this way. The British Association was meeting in Australia in the summer of

1914, and the Australian Government had given free passages to about one hundred well-known British scientists. Almost at the last moment one of them could not go and no one of repute could be found to take his place at such short notice. A kind friend suggested me as a substitute and I packed and got on board as quickly as I could. Happy days! How it all comes back to me! Life seemed very secure and stable then, at any rate to a young man living in Oxford. Ignorance was bliss. The war broke out a few days before we reached Australia, but there was no sign of it when we left England, nor even when we left Cape Town. Everything was very peaceful. There was no excitement anywhere, except in the scientific world, where the most thrilling things were happening, and the author of most of the excitement, Rutherford, the great man himself, was on board—behaving like a high-spirited schoolboy home for the holidays. He was only a little over forty then. But he used to play games on the *Euripides*. I partnered him at deck-tennis. He used to stand at the back of the court where he was worth a good many points to the side by keeping up a running commentary on the looks and behaviour of the opponents. We won the deck-tennis doubles together. Yes, by the way, I forgot that when I said that I had never shared in any of his triumphs. We won the deck-tennis doubles together.

The Infection of Enthusiasm

My memory of him then, as indeed afterwards, is that of a man who was always on the top of his form. There were moments when he was not, but they were so unusual that one forgets them. He bubbled with vitality. One of my memories is that of little children fascinated by the great man at breakfast to such an extent that the porridge spoons would be suspended half-way to the open mouths waiting for the next joke. Once when an unusually absurd remark was

(continued on next page)



"RUTHERFORD had the power and opportunity to gather round him, and inspire, many young men." The photograph shows Rutherford with the two young scientists, E. T. S. Walton and J. D. Cockroft, who (working under his direction) first split the atom