

SIR HENRY TIZARD
Shared a shipboard triumph

(continued from previous page)

made when the spoons had actually reached the mouths the result was catastrophic.

Of course, he was not going to be let off, on board ship, without giving a lecture. He lectured to us all on "Radium." The audience consisted of a few scientific men who knew a great deal about it, others who knew a very little about it, and the other passengers, male and female, who knew nothing about it: but he enthralled us all. He discussed the properties of radium and dwelt upon its extreme rarity and value, and on the danger of keeping it for any length of time near one's skin; and he then said: "Now, in order that you shall all know what radium bromide looks like, I will hand round this tube." The tube was passed rapidly round, handled gingerly, and returned to him safely. I noticed that there was rather a lot of this valuable material in the tube, so I asked Rutherford afterwards what the tube really contained. It was a mixture of common salt and sand!

I must tell you something more about his lecturing, which was so characteristic. He was not a good speaker. He used to fumble for the right word and generally fail to find it. He disliked having to make formal speeches on official occasions. But when he lectured on his own subject, on the things he was doing, on the new great discoveries of physics, he was superb. The infection of his enthusiasm was caught by every member of the audience, and it did not matter in the least that the delivery was often halting; in fact, it added to the charm of the lecture. This was true even of his early days at McGill University. The professor of classics at McGill, who did not think much of scientists, once went to hear Rutherford lecture, and this is what he wrote afterwards: "Here was the rarest and most refreshing spectacle, the pure ardour of the chase, a man quite possessed by a noble work, and altogether happy in it."

## Tricks of Speech

He had little tricks of speech which used to come out regularly. For instance, he would say to a large audience: "I may tell you in confidence"; or he would say, "If you know what I mean," or "If you will allow me, I will do so-and-so...," and I used to wonder what

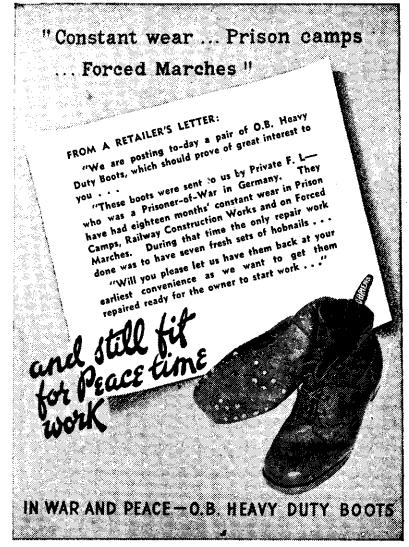
would happen if the audience decided not to allow him. The more informal and intimate the lecture was, the better he was. He knew how to get on good terms with the young. Many years ago he came to Oxford to lecture to an undergraduate club on the "Theory of the Atom." There was a small dinner beforehand, at which Professor Perkin, a professor of chemistry at Oxford and an old friend of Rutherford's, was present. Professor Perkin, I may say, had a round head and a jolly, red face. Rutherford was in his usual high spirits and Perkin at last said: "You know, Rutherford, you are only an over-grown schoolboy, after all," to which Rutherford "I'll get even with you for that." When he started his lecture Rutherford said: "Now, in order to fix your ideas on the nucleus, I want you all to imagine a small round hard object -such as Professor Perkin's head. The density of this object is almost unbelievably great." After this the lecture went with a bang, and no one was too shy to join in the discussion.

## A Believer in Simplicity

I have a record of a lecture that Rutherford gave in Goettingen, in Germany, before the war. Here is a characteristic remark in the middle of the lecture when he had warmed up: " . . . . I had the opinion for a long time that if we knew more about the nucleus, we'd find it was a much simpler thing than we supposed. For the fundamental things, I think, have got to be fairly simple, but it's the non-fundamental things that are very complex usually. So we are hopeful-we must look for simplicity in the system first, and if there is simplicity we may not find it-well, we have got to look for something more complex. I am always a believer in simplicity, being a simple person myself. . . ." After the lecture the Chairman asked whether Rutherford would be willing to have a discussion. "It's a question," he said, "of whether your dinner is more important than the discussion." So they had the discussion. I wonder what choice they would make now. I think if it was Rutherford speaking they would still have the discussion rather than the dinner. During the discussion, in answer to a question about the nucleus, Rutherford said: "I don't think it can be as simple as I have suggested, if you know what I mean. At the first approximation, I suppose it is fairly simple, but I am not sure—one doesn't want to be too sure of the nucleus. It has many sur-prises for us."

The nucleus certainly had many surprises for us. How often do I wish now, when I open my paper and see the latest pronouncement of scientist, statesman, or mere ignoramus about the atomic bomb that we had Rutherford with us again with his commanding genius, his power to go to the simple root of a problem, his abounding commonsense, and his faith in the future, to keep us all straight and sensible.

The last time I saw Rutherford, or rather the last time I have a vivid memory of him, was when I went to see him in his cottage in Hampshire. I found him up a tree sawing off a branch. "I reckon I do know how to use a saw still," he said, and so he did. So far as I remember, I did not see him again. He died in 1937 after a few days' illness. The ashes of no greater genius lie in Westminster Abbey,



MADE BY M. O'BRIEN & CO. LTD.

CHRISTCHURCH, N.Z.

HANDKERCHIEF MAGIC

No. 16

Grafton HANDKERCHIEF

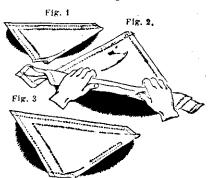
As Many Times as You Like . . . A Grafton Handkerchief can take the roughest wear.

DISAPPEARING PENCIL

Take a Grafton Handkerchief and fold into a triangle. Then lay your handkerchief flat on the table with the underneath point of the triangle falling two inches short of the top point. (Illus. 1.)

Place a pencil on the base of the triangle and roll. (Illus. 2.)

When the short end of the fold overlaps the pencil, unroll and you will find the bencil in between the two folds of your Grafton. (Illus. 3.)



Sole Manufacturers in N.Z.; KLIPPEL BROS. (N.Z.) LTD., Box 426, Auckland.