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Jan. 29, 1941.

Dr. Compton's striking metaphor about the cyclotron was given orally at the meeting rather than in his letter. I am sure that I shall not be able to repeat it with anything of the poetic force it had at that time.

Suppose that a man lives on a sandy beach at a place where there is always a strong inshore wind blowing. From time to time the resulting waves roll up onto the beach all sorts of things which excite and stimulate his imagination: a fragment of some machine made of some strange light material -- curious fragments of what appear to be wearing apparel -- part of a book written in an unknown language -- and other strange objects. It is clear that, somewhere out to sea, there must exist an unknown land full of exciting and interesting treasures. To formulate a description of this land merely from the fragments washed up onto the beach would be an extremely long and difficult job. But the inshore wind is so strong that the man has never been able to make a boat strong enough to buck that wind.

In a closely analogous way, the physicist has exciting fragments of information which have come to him out of the unknown heart of the atom. The attempts to voyage directly into that heart have, to date, been so stoutly resisted that he has had to content himself with patching together a story based on the fragments. The new cyclotron is the boat, stout enough and strong enough to overcome the tremendous resistance and penetrate directly into this unknown land.

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