

SCIENCE

VOL. LXVIII

DECEMBER 14, 1928

No. 1772

PURE SCIENCE AND ENGINEERING¹

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SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKeen Cattell and published every Friday by

THE SCIENCE PRESS

New York City: Grand Central Terminal.

Lancaster, Pa.

Garrison, N. Y.

Annual Subscription, \$6.00. Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

A GENERATION ago the physicist felt himself to be a very superior sort of person indeed. If he were called upon to address an audience, as I am to-day, made up largely of engineers, he had to make a conscious effort not to appear condescending. He knew, and was very conscious of his knowledge, that *his* quest for scientific truth was a finer and more altruistic thing than the engineer's search for a useful application of a principle. There were a number of sure guiding principles which he had discovered: law of this, conservation of that and the principle of the other thing. By the end of the last century the physicist was becoming a bit dogmatic and certainly in no apparent danger of acquiring an inferiority complex. To-day, all this is changed, at least for all of us except the very few of the brilliant young men who are courageously tackling what we are coming to feel is about the most elusive and capricious thing in all nature—the atom.

During the past twenty-five years dogma generally, and scientific dogma in particular, has grown unfashionable, and we physicists have become as a class singularly free from cock-sureness and perhaps rather too humble when we consider the wealth of important discoveries which have come as by-products in our as yet unsuccessful attempts to understand the nature and behavior of the atom.

We feel much more sympathetic to the biologist than we did; our troubles with inanimate matter make us realize better what difficulties he is confronted with, deprived as he is of the aid of the higher mathematics which has been of such great help to us. We feel a need as never before of aid from the engineer, for research in atomic physics is requiring ever more powerful accessories such as only the engineers can furnish us.

We are glad therefore to recall tactfully the debt which engineering owes to former and present research workers in the pure sciences and to enlist your intelligent interest in the solution of what appears to be for pure and applied science alike the most fundamental problem—the constitution of the atom.

¹ Address given on the occasion of the opening of the Engineering Building of Princeton University, November 15, 1928.

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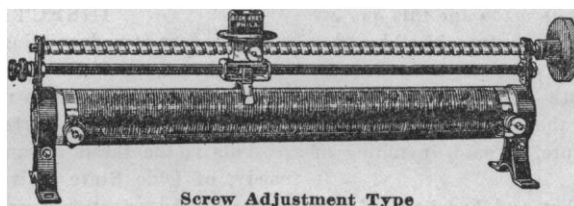
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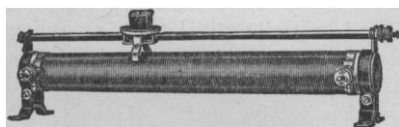
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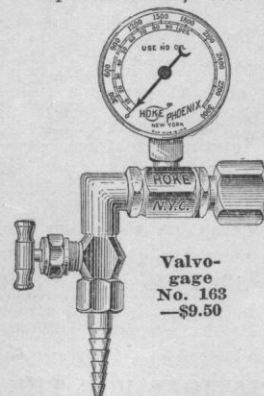
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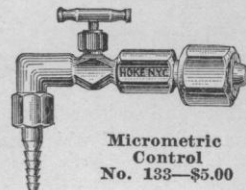
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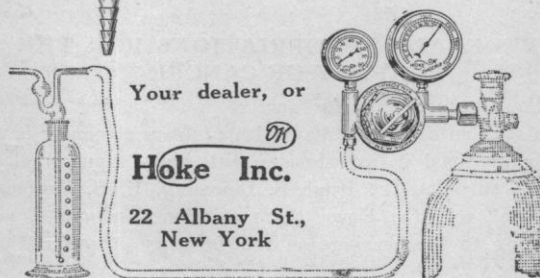


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