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Apparatus for Measuring Young's Modulus at Small Strains

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APPARATUS FOR MEASURING YOUNG'S MODULUS AT SMALL STRAINS

JAMES A. VAN ALLEN

A simple, easily constructed apparatus is described for the measurement of Young's Modulus of metal rods or bars under direct longitudinal stress, with total strain as low as 2×10^{-6} for a specimen of 10 cm. length. The extension of the specimen is magnified by a system consisting of two mechanical and two optical levers.

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TWO EXPERIMENTS FOR FIRST YEAR STUDENTS OF PHYSICS

W. H. KADESCH

In the first of these the acceleration due to gravity is measured by timing by means of an electrically driven tuning fork the descent of a small metal ball. The start and finish of the fall are recorded electrically on a rotating drum on which the fork is also making a trace.

In the second experiment the average velocity of air molecules is measured by finding the volume per second of the gas emerging from a region of higher pressure (usually atmospheric) into one of low pressure, through a small orifice of measured diameter.

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SOME FINDINGS IN THE NATION-WIDE TEACHING PROGRAM

C. J. LAPP

The Nation-wide program in College Physics testing is now in its fourth year and many interesting findings have been made. They were presented by slides and diagrams.

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