The Ohio State Engineer

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The Pressure Gauge

Out of the thousands of men who use Hercules Dynamite daily probably very few ever think of the experimental work that is done to make this dynamite meet their needs exactly. Yet this work is of vital importance in the maintenance of high standards.

In one of the laboratories of the Hercules Experimental Station at Kenvil, N. J., stands a massive steel cylinder with a door at one end resembling the breech block of a 12-inch gun. This machine is called a pressure gauge.

By accurately measuring the pressure of the gases developed by the explosion of a small charge of dynamite within the cylinder, the pressure gauge provides one test for determining the strength of that explosive. These gases can be drawn off and analyzed. This analysis is highly important because for work underground, in confined spaces, an explosive must not only provide power to tear down the materials, but it must do so by producing gases non-injurious to those who inhale them. Moreover, the character of the gases indicates whether the explosive tested was made on a formula so balanced that all ingredients contribute fully towards a useful purpose, or, as the chemist would say, whether detonation and combustion were complete.

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There are thousands of that kind and, soon or late, they learn with a shock that they can get just about so far, and no further.

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“The trouble,” said a speaker, “is that too many of us are ‘drop-forged’ engineers. We know our profession; but of Business, to which it is so closely related—we just don’t know what it’s all about.”

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The Institute has only one Course. It takes a man out of college and gives him a working knowledge of all the departments of business.

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