RESEARCH AND INVENTION IN ENGINEERING COLLEGES

By Dr. A. A. POTTER
DEAN OF ENGINEERING, PURDUE UNIVERSITY

Research at Engineering Colleges

The practice of engineering can only be kept up to date through research. Engineering research has among its major objectives the development by scientific means of new manufactured products, more efficient machines and tools, special mechanisms and devices, improved meters and instruments, better manufacturing processes and more economical methods of operating equipment. Industries that have made the most spectacular progress are also foremost in research. Research is an integral part of any organization interested in efficiency, in long-range goals and in linking the present with the future.

1 Address of the vice-president and chairman of the Section on Engineering, American Association for the Advancement of Science, Columbus, Ohio, December 28, 1939.

No very clear-cut line can be drawn between scientific and engineering research, although the latter is more generally concerned with the results of immediate economic value. It is also difficult to differentiate between research and development.

Research in higher educational institutions is being supported to a considerable extent by industry and government. Industry recognizes that the research specialist at an educational institution is working in an atmosphere which is sympathetic to research and free from interruptions. The efforts of the research worker in an educational institution result not only in new knowledge but also in improving the main product of education—the students. In the past there has always existed a definite gap between the successful completion of a scientific research project and the utilization by industry of the results secured.