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THE SOCIAL EFFECTS OF MASS PRODUCTION¹

By Dr. DEXTER S. KIMBALL

DEAN OF THE COLLEGE OF ENGINEERING, CORNELL UNIVERSITY

IN the center of the theater district on Broadway, New York City, behind large plate glass windows there stood a short time since a modern cigarette-making plant. One machine, fed constantly with pulverized tobacco leaf and wrapping paper, ejects continuously a cigarette bar which is cut into standard lengths as it issues from the machine at the rate of 500 cigarettes a minute. A neighboring machine takes the cigarettes and automatically places them in packages, closes them and delivers the finished marketable product. The degree of skill required to operate the machine is small, though, of course, some one must fully understand the mechanism and be competent to make adjustments. At the other extreme of size, consider the automatic factory of the A. O. Smith

¹ Address of the vice-president and chairman of Section M—Engineering, American Association for the Advancement of Science, Atlantic City, December, 1932.

Company of Milwaukee. This great machine literally takes in steel plates at one end and ejects finished automobile frames at the other at the rate of 8,000 daily. The machine, for such it virtually is, cost \$10,000,000 and requires only 200 men to operate it. Probably 5,000 men would be required to produce the same result with ordinary processes. Here again, of course, there must be a certain number of skilled engineers who can adjust the machine, but the labor cost of actual operation is comparatively insignificant.

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