

School of Mechanical and Electrical Engineering

On June 24, 1891, the School of Mechanical and Electrical Engineering, State College of Kentucky, was organized for the purpose of giving to the young men of the country, and especially of Kentucky, that training fitting them to be designers and builders of all kinds of machinery, and preparing them to be operators and superintendents of manufacturing plants.

Sharp competition in mechanic arts has destroyed the apprenticeship system. Shop hands have become mere machines and understand the working of materials of construction within very narrow limits. A boy will operate a complex machine and turn out as much work in a day as a man.

Where do we look for the brains of a modern manufacturing plant? Not to the machine operators, but to the machine builders and designers. The workman is often a mere tool in the hands of the superintendent.

The inefficiency of the apprenticeship system has compelled the progressive States of the Union to provide other means of training their sons to carry on the manufacturing industries so essential to the welfare of any nation.

The technical school is no longer an experiment. Its influence and power has demonstrated that a manual training school is superior in many respects to that system which aimed at practice alone with little regard for theory.

The mechanic of to-day finds his field of usefulness in the designing room, and not in the operation of machines. The true mechanic is the designer and builder of the machine; the operator of a machine is often only a part of the machine he tends.

The application of machinery to almost every phase of human industry has developed the mechanic arts to such an extent that a large field of usefulness is open to the mechanical engineer well trained in the theory and practice of his profession.

SUCCESS OF GRADUATES.

It has been regretted that most of our graduates have been sent to the East and North, but as the resources of the State are developed, and as the manufacturing interests of the State are taken up more comprehensively, we feel that Kentucky's

sons will be prepared to occupy those positions that will be created by Kentucky capital.

Aside from this feature of the case, a school of technology is bound to be effective by pointing out definitely the real merit of newly developed resources, and later in presenting to new concerns the most improved methods of operation. Much work has been done by the State College on the coals and building stones of the State. This institution is at all times eager to take up any problem looking toward the development of the State's industries. I predict that in ten years a man who is not a graduate from a technical school will not be able to hold a responsible position as a superintendent of a manufacturing concern, or as a designer of special machinery. The fact is now that nearly all of the advertisements in the "want" column of our technical journals specify men from technical schools. Most owners of manufacturing plants have come to feel that it is no longer possible to train a man in the real science of machine building without a thorough knowledge of physics, chemistry and mathematics as a foundation upon which to build the theory of machine design, which includes kinematics—the science of motion—and strength of materials, which is the science of the resistance offered by various materials of all kinds of stress.

A hearty co-operation should exist between the manufacturing concerns of the State and the State College of Kentucky. Preference should be given to our young men rather than to send to the East and North for this class of labor. Those in charge of the State College of Kentucky have felt many times that there is not here a legitimate field for trained mechanical and electrical engineers, and our experience has been such as to convince us of this fact, for nearly all of our graduates are compelled to go into other States for employment. There is no legitimate reason for this, for with the vast resources in timber and coal, Kentucky should be one of the foremost of manufacturing States. We are hopeful and encouraged in our labor of technical education, for we know the day must come when there will be a large demand for young men thoroughly trained and skilled in the science of machine design, machine building and machine operation.