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THE REGISTERED PROFESSIONAL ENGINEER IN OHIO

By JOHN A. BORMAN

LIKE many other professions, the engineering profession has banded together to further their interests and develop the potential benefits of modern life for the practicing members. George Bernard Shaw's statement that "Every profession is a conspiracy against the public" appears quite true when one considers that every association of men is a protective conspiracy against all others outside of their group. But such group attitude can be more fittingly termed loyalty and cooperation as means toward better practicing conditions, higher ethical standards, and fair competition.

As a direct result of mutual cooperation of many professional engineers, certain laws have been enacted by the legislatures of forty of the forty-eight states of the Union to regulate the practices of professional engineers. State boards of registration, which define the terms "engineers" and "surveyors", prohibit all unqualified persons from practicing under those titles. Registration laws are not designed to restrict or prohibit the rightful engineer from practice, but on the contrary, are so conceived that they protect his investment of time and money for the sake of his future in the profession. In addition, the effects of such a law pro-

tect the public from the dangers arising out of attempts by incompetent or unethical persons to practice engineering.

In Ohio, the Engineers and Surveyors Registration Act defines the terms "professional engineer" and "surveyor" in the following manner:

"The term professional engineer as used in this act shall mean a person who, by reason of his knowledge of mathematics, the physical sciences, and the principles of engineering, acquired by professional education and practical experience, is qualified to engage in practice as hereinafter defined.

"The practice of professional engineering . . . includes any professional service, such as consultation, investigation, evaluation, planning, design, or responsible construction or operation in connection with any public or privately owned public utilities, structures, buildings, machines, equipment, processes, works or projects, wherein the public welfare, or the safeguarding of life, public health or property is concerned or involved when such professional service requires the application of engineering principles and data.

"The term surveyor as used in this act shall mean

a person who engages in the practice of that branch of engineering commonly known as surveying which is held to mean engineering and applied mathematics which teaches the art of surveying and measuring the area of any portion of the earth's surface. . . .

Graduation from a recognized college of engineering alone does not qualify one for registration as a professional engineer or surveyor. Under the registration act the following provisions must be met by applicants:

"Graduation from an approved course in engineering of four years or more in a school or college approved by the board as of satisfactory standing; and a specific record of an additional four years or more of active practice in engineering work of a character satisfactory to the board, and indicating that the applicant is competent to be placed in responsible charge of such work; or

"Successfully passing a written . . . examination in engineering prescribed by the board, and designed to show knowledge and skill approximating that attained through graduation from an approved four year engineering course and a specific record of eight years or more of active practice in engineering work of a character satisfactory to the board and indicating that the applicant is competent to be placed in responsible charge of such work."

For surveyors the requirements are similar except that the applicant must have had two years of active practice instead of four in addition to his completion of an approved course in surveying in college. However, a person may be considered eligible for registration without having completed a four year engineering course, but in such a case he must fulfill the requirements by having ten years of actual experience. Each year completed in an engineering course is considered the equivalent of one year of active practice. Graduation from a course other than engineering (liberal arts and sciences, for example), from an approved college or university is considered the equivalent of two years of practice, providing, however, that the applicant cannot receive credit for more than four years of active practice because of educational qualifications.

Recent efforts in the form of proposed amendments have been made in some states having registration laws similar to Ohio's to raise the engineering profession to a higher plane by changing the registration requirements. The changes would include two years of pre-professional study in a college of liberal arts and sciences before admission to an engineering school. To compensate for the lengthening of the time spent in college, a reduction of the present four-year apprenticeship period to two years is proposed. Thus the total period of theoretical training in college and active practice before registration would remain the same.

The administration of the registration act is in the hands of a state board of registration composed of four professional engineers and one surveyor. It is required that they shall have been engaged in engineering work for at least twelve years.

The state board now recognizes ten fundamental branches of engineering: Civil, Mechanical, Electrical, Mining, Chemical, Metallurgical, Structural, Ceramic, Industrial, and Architectural. It has been only recently that registration as an architectural engineer and use of that title has been possible. Due to insistent demands upon the board to include that branch of engineering for registration because degrees are conferred by the Ohio State University as well as other leading engineering colleges and universities, an opinion was rendered by former Attorney General Herbert F. Duffy allowing registration of men qualifying as architectural engineers instead of only those who were able to qualify as architects.

It is unlawful for a professional engineer or surveyor to engage in any work which comes under the provisions of the Professional Engineers and Surveyors Registration Act unless he holds a certificate of registration issued by the State Board. Neither can he assume the title "professional engineer" or "professional surveyor" for the purpose of advertising himself without that permit. But these restrictions placed upon unlicensed engineers do not apply to any engineering work not involved in any way with public health or safety. Where the engineering or surveying relates solely to design or fabrication of manufactured products and thus does not involve itself with general public safety, the engineers or surveyors are not required to conform with the Act.

To make this act effective as a protective measure for professional men, the Ohio Society of Professional Engineers cooperates with the state board in exposing the misuse of the proper titles and any illegal practice by unlicensed engineers. The adoption of a strict code of ethics discouraging competition among engineers and surveyors, undignified self-praise in advertising, and injury to the reputation of other members of the profession has been the direct result of such legislation and group action by engineers and surveyors.

Dust to Steel

Earth, ore, slag, steel!
Slag burning with life,
Steel cold as death.

Men grab, fight, steal!
Propaganda for strife
To the last man, to the last breath.

From dust to steel!
From dust to man
And back again!

Do all we can,
We can not ban
War! The cards will deal
So men can steal.

Man builds, but to destroy
Man, women, and boy.

—P. T.