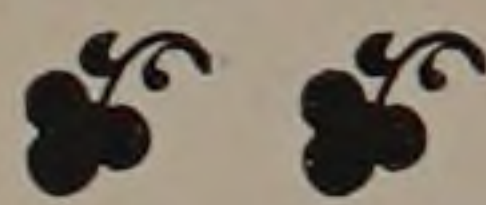
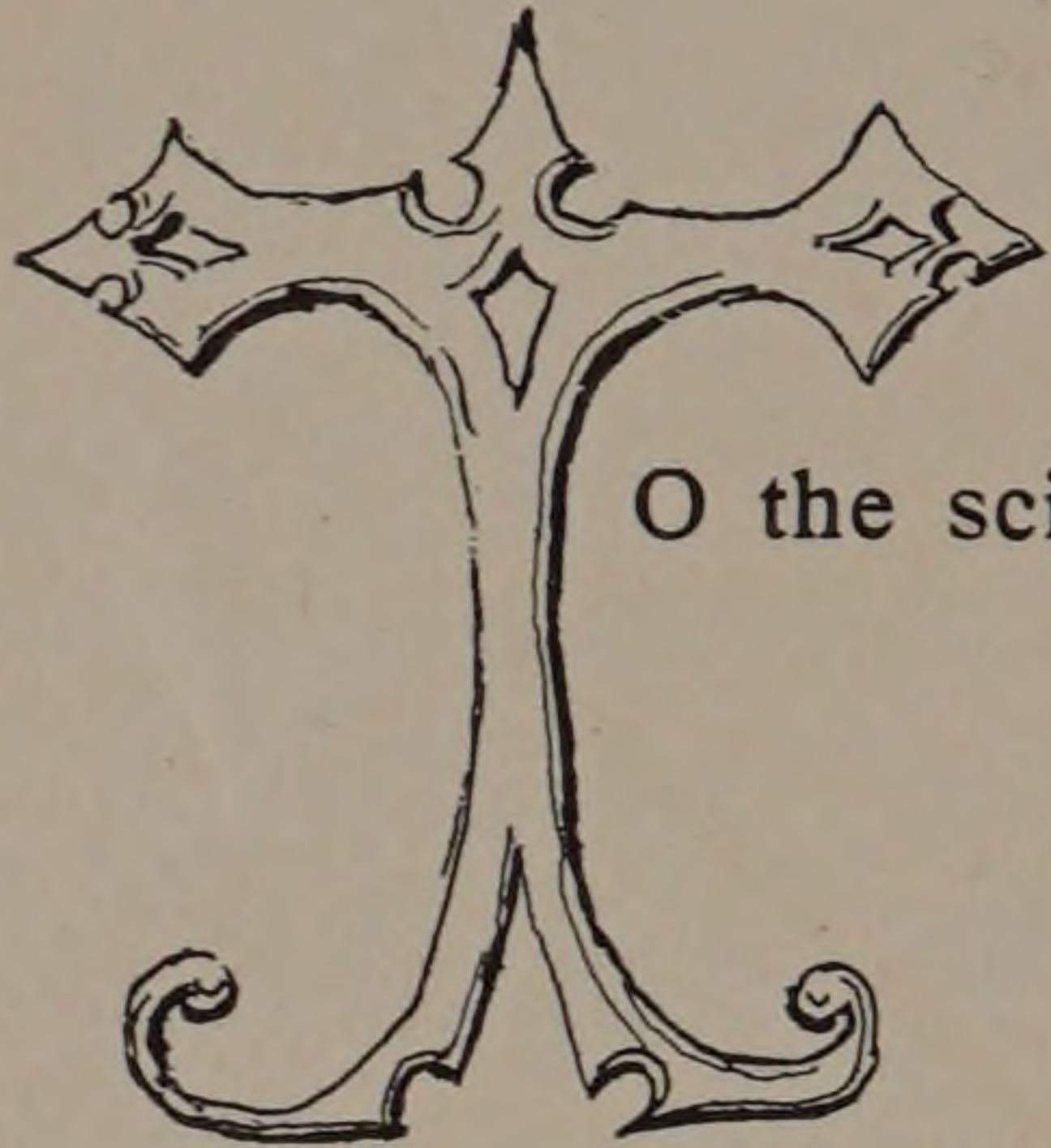


## The Department of Mechanical Engineering



O the scientist, whether physicist, or chemist, has fallen the glory resulting from the discovery of the principles that have been the basis of our present state of civilization. But to the engineer has fallen the task of separating the practicable from the impracticable and making a successful application of what would otherwise have remained simply an interesting discovery.

On account of the vast field presented to the limited energy of the engineer, specialization is a necessity: — hence the classification of the profession into Civil, Mechanical, Electrical, Mining, and Chemical Engineering. Each of these has a peculiar field, although more or less dependent upon the principles that govern the others.

The influence of mechanical engineering upon manufacturing and commerce, and thus upon the present high development of our social state, has been most potent. For there is no engineering undertaking, whether civil, electrical or chemical, but that a demand is made upon the mechanical engineer for his services. Thus an electrical engineer in constructing a dynamo depends upon mechanical engineering for its actual construction, such as the correct proportions of the parts for withstanding the required stress.

It will thus be seen how important the Department of Mechanical Engineering is to a successful engineering school, and that mechanical engineering is the foundation for specialization in other fields.

There are three classes of men in the engineering profession. Those who are well up in theory, but are unable to make an application of theory to practice. Those who are born engineers possessing a genius for securing results, seemingly by intuition, and knowing nothing or very little about the cause that produces the effect, the so-called practical engineer. Then there is the man who combines theory with practice, taking such part of the theory and such part of the experience gained by the mistakes and successes of the practical man as will combine successfully.

To the first class belong the majority of young graduates from technical institutions. To the second class belong the so-called self-made engineers; the men who are apt to scoff at theory, and have little use for the college graduate. In the third class will be found the successful engineer of the future. For while in the early stages of the profession the capabilities of the practical man were