

## Does your Engineering Society Mean Anything to You?

Have you ever pictured in a technical way, the meaning of your Student Engineering Society?

On the following page we have the author's conception of the importance of the A. I. E. E., as it appears from the student point of view. He has drawn and arranged in logical order the various parts of an alternating-current lighting circuit representing the successive steps taken by the student of electricity, on the road to success in his chosen profession. Not only has the progress of the individual been portrayed, but an attempt has been made to show also the advancement of the industry itself. Do you think the comparison a good one, and the parts properly arranged?

In order to understand more fully the author's mode of reasoning, let us carefully analyze the diagram.

First, we have the Student Badge of the A. I. E. E., representing the source of energy, for the symbol is generally used to designate an alternating-current generator. Analogous to the source of energy is the electrical circuit, or in other words the generator, we have a source of successful engineers, the Student Branch of the A. I. E. E. In order to utilize properly this generated energy, a step-up transformer is provided, by means of which the power generated at comparatively low voltage, may be transformed or converted into power of sufficiently high voltage to maintain the lights of Ambition, Energy, and Success, and to keep them burning *brightly*. Thus we have represented by the transformer the transcending of the individual from student to engineer; the primary circuit depicting the present, and the secondary symbolizing the future.

As the center of distribution for this power in the secondary, there is the badge of the Institute itself, which is representative of the importance of the national organization in the electrical world. The two interlocking rings or circles, which appear on the national A. I. E. E. Badge, are symbolical of an alternating-current machine, and in the circuit under discussion may be thought of as an additional source of energy, to be resorted to in the event that our primary source "break down," or otherwise as a synchronous machine provided for the betterment of conditions in the secondary. In this manner, should the Student Branch, or Branches prove to be a failure in supplying material for developing successful engineers, the national A. I. E. E., may be resorted to. Therefore, figuratively speaking, the Institute is the heart of the entire circuit, and is by far the most necessary adjunct for the satisfactory operation of the lamps of Ambition, Energy, and Success.

As indicated in the diagram the three lights, Ambition, Energy, and Success, are necessarily operated in series, for without Ambition and Energy, Success is impossible. Likewise, when referring to the industry itself, Progress is impossible without Co-operation and Effort. Having carefully considered the equation,

$$\text{Success} = \frac{\text{Ambition}}{\text{Energy}}$$

in which all quantities have finite values, it was concluded that such a series circuit would be the most appropriate to show the relationship existing between these quantities. Should any one of the three lights burn out it is evident that an open circuit exists, and hence the others will remain out. The degree of illumination for each lamp would necessarily depend upon the amount of Ambition and Energy possessed by the individual. In this manner with a constant voltage in the primary and secondary, and operating under other ideal