

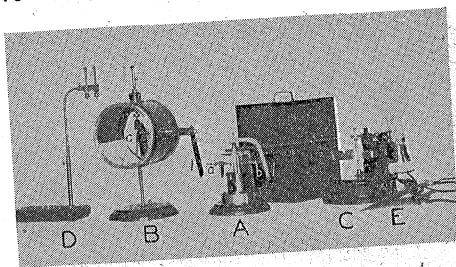
A NOVEL HOMEMADE ELECTROSTATIC GENERATOR AND ZELANY ELECTROSCOPE ASSEMBLY

D. L. EATON

Northern Illinois State Teachers College, DeKalb, Illinois

The apparatus used in the demonstration and illustrated in the accompanying cut was constructed by a friend of the author, Mr. Howard Daily, of Battle Creek, Michigan. Mr. Daily, recently deceased, was a skilled mechanic and an amateur scientist skilled in constructing apparatus for striking demonstrations of physical principles. The apparatus is presented in the view that it possesses some unusual features and merit in which others may be interested.

B is a modified Zeleny Electroscope. **A** is an electrostatic charger constructed on the principle of the Toepler-Holtz machine and housed in a glass tumbler. **C**, the motor for driving the charger, is a modified watt-hour meter. **D** is a stand on which is mounted a wire grid which may be heated to show the emission of



therm-ions. **E** is a zinc plate which may be mounted on the electroscope when demonstrating the photo-electric effect.

The plate **e** of the electroscope may be charged either positively or negatively by moving the charger so that either terminal **a** or **b** is in contact with one of the flanges of the charger **1**. Thus it may easily be shown whether positive or negative ions (or both) are present.