

power to aid in this accomplishment by inducing institutions which they can influence to subscribe. All correspondence relating to subscriptions should be addressed to M. G. Severin, Musée Royal d'Histoire Naturelle, 31 Rue Vautier, Bruxelles, Belgium.

PHILIP P. CALVERT

UNIVERSITY OF PENNSYLVANIA

#### CROSS-SECTION LINES ON BLACKBOARDS AND THEIR ILLUMINATION

THOSE who wish cross-section rulings on blackboards temporarily, thus leaving the board free for other work after the curve-plotting is finished, can do so by a simple device. On a sheet of white paper make a ruling of lines, 2 cm. apart, the whole grid being  $16 \times 24$  cm., and the lines not quite one mm. thick. Take a photograph of this, making the camera image the size of a lantern-slide. Mount the negative in a lantern, projecting the image on the blackboard. A lantern equipped with a 400-watt Mazda lamp will make the lines sufficiently visible for plotting even in a well-lighted room. The lines are erased by turning off the lamp.

#### FLOOD-LIGHTING FOR BLACKBOARDS

A SIMPLE system of lights should be added in dark recitation and lecture rooms, so that no light reaches the eye, either from the illuminant, nor from the board by direct reflection. A 40-watt lamp suffices for 4 ft. of blackboard, and need not project from the wall more than 18 inches.

PAUL F. GAHR

WELLS COLLEGE

#### CONCERNING THE MANUFACTURE OF SULPHONIC ACIDS

THE Department of Agriculture announces that the color laboratory of the Bureau of Chemistry, of this department, has developed, on a laboratory scale, a new process for the manufacture of certain sulphonic acids. This process, as carried out in the laboratories, appears so promising that it is thought that some manufacturers of chemicals and dyestuffs in this country may be able to supply their demands for these and other valuable compounds

by this process, provided the process can be reproduced upon a technical scale so as to obtain results commensurate with laboratory investigations. The process refers particularly to the sulphonation in the vapor phase of benzene, naphthalene, and other hydrocarbons.

With a view to helping the chemical industry of this country, the Department of Agriculture hereby announces that it is ready to assist manufacturers who wish to produce these compounds. The expenses of the technical installation and of the labor and materials necessary will of necessity be borne by the firm, individual, or corporation wishing to manufacture the products. The chemists of the Color Laboratory will assist with expert advice, etc. The department reserves the right to publish all the data obtained from the technical experiments.

This offer of assistance will not be held open by the department for an indefinite period.

D. F. HOUSTON,  
*Secretary*

DEPARTMENT OF AGRICULTURE,  
WASHINGTON, D. C.

#### SCIENTIFIC BOOKS

*British Antarctic (Terra Nova) Expedition, 1910.* Natural History Report, Zoology, II., No. 8. *Brachiopoda.* By J. WILFRID JACKSON, F.G.S. 4to, pp. 177-202, 1 pl., July 27, 1918, London, British Museum.

The various Antarctic expeditions in the years immediately preceding the war, obtained material greatly extending our knowledge of the fauna of the regions about the Southern Pole. This to a considerable extent reached the scientific world by means of publication, but a certain portion was delayed and, owing to war conditions, seemed likely indefinitely to continue so. It is therefore with peculiar pleasure that we have received the present contribution issued during the past summer by the trustees of the British Museum.

The *Brachiopoda* obtained by the Terra Nova party form an interesting and valuable series adding considerably to our knowledge of the characteristics and geographical distribution of the Antarctic species. One of the forms