First Glances at New Books

PLANT ECOLOGY—John E. Weaver and Frederic E. Clements—*McGraw-Hill* ($5). Probably an overwhelming majority of plant ecologists are agreed that this is the most important single book in their field that has appeared in the English language since the translation of Warming's pioneer treatise a generation ago. The senior author developed the concept of succession, perhaps the largest single contribution American ecology has made, at about the same time, though independently of, the classical studies of Cowles. Prof. Weaver has built a world-wide reputation by his studies on the autecology of roots. The personal contributions of the authors receive full, but not obtrusive, treatment in a book which—brushing aside justifiable but minor criticisms—must fairly be designated a masterpiece.

Ecology
Science News-Letter, February 8, 1930

A GUIDE FOR THE STUDY OF PLANTS —Mabel E. Smallwood—*Heath* ($1). A second edition of a successful laboratory and field study guide for students in elementary botany.

Botany
Science News-Letter, February 8, 1930

MYSTERIOUS SAHARA—Byron Khun de Prorok—*Reilly and Lee* ($5). More a book of travel and exciting adventure than a record of scientific discovery. Experiences with the Tuareg are recounted. There is a running account of digging into abandoned sites in the Sahara. Excavation of a burial which Count De Prorok claims to be that of a woman and more specifically that of Queen Tin Hinan is graphically described.

Exploration
Science News-Letter, February 8, 1930

ELEMENTS OF PLANE GEOMETRY —W. H. Bruce—*Southern Pub. Co.* ($1.20). Another elementary geometry text that closely follows the conventional standard.

Mathematics
Science News-Letter, February 8, 1930

IMPRESSIONS OF SOVIET RUSSIA AND THE REVOLUTIONARY WORLD — John Dewey—*New Republic* ($1). A philosopher considers the areas of the earth, where civilization is in a state of flux. These New Republic articles reprinted provide a survey of the past revolutionary decade.

Sociology
Science News-Letter, February 8, 1930

Wind Through Walls

WIND blows right through brick walls.

A well-laid 13-inch wall in the face of a 30 mile an hour wind will allow 14.75 cubic feet of air to pass through it every hour, G. L. Larson, D. W. Nelson and C. Braatz reported to the International Heating and Ventilating Exposition. This data is obtained from researches they have conducted at the University of Wisconsin.

But proper plastering with gypsum directly on brick, they find, will stop 96 per cent. of the leakage. Less air will leak through a wall which has been well constructed and in which all spaces between bricks are filled with mortar.

Houses are hard to heat during windy weather not only because cold air is blown in the cracks but also because heat actually leaves building material faster when a wind is passing by, heating engineers have found.

A seven mile an hour wind one degree colder than the surface it is blowing by will carry away three British Thermal Units of heat from each square foot of surface every hour, Frank B. Rowley, A. B. Algren and J. L. Blackshaw, of Minneapolis, Minn., reported, and a thirty mile wind under the same conditions will take eight heat units.

Their experiments have been conducted at the University of Minnesota as a part of cooperative research work between the American Society of Heating and Ventilating Engineers and the University.

RADIANT energy which has traveled more than 96,000,000 miles to become the cause of a serious problem for heating and ventilating engineers was the subject of a paper presented by F. C. Houghten and Carl Gutberlet, of Pittsburgh.

The engineers measured this energy which comes from the sun and their results closely checked those obtained by others. They found that on an ordinarily bright day in the smoky city of Pittsburgh a piece of black oilcloth 10 feet square would receive more than one horse power of energy from the sun. Expressed in terms of heat, this is about 45 British Thermal Units per minute—enough to heat a pound of water from the freezing point to 77 degrees Fahrenheit.

Heat that houses absorb in this manner in the summer constitutes the problem for engineers.

Engineering
Science News-Letter, February 8, 1930