physical-chemical properties of Portland cement by the National Bureau of Standards and the Portland Cement Association include the following projects: 1. A study of cement clinker made from pure compounds and from pure compounds with admixture of the impurities found in natural materials. 2. Petrographic studies to determine the optical characteristics of cement mineral constituents and the quantitative petrographic analysis of clinker. 3. A study of the hydration of cement in all its phases. 4. The crystalloidal behavior of silicic acid. Thus far the work has included principally the development, construction and standardization of equipment and methods of testing. It is hoped that the studies can be extended into other fields beyond those already projected. This work will continue and extend the bureau's studies, which for several years have been under the direction of P. H. Bates; Dr. R. H. Bogue, formerly at Lafayette College, will be directly in charge of the association's group of workers who are stationed at the bureau.

UNIVERSITY AND EDUCATIONAL NOTES

A SIX-STORY building to house teaching and research in the departments of physiology, physiological chemistry and pharmacology is being planned at the University of Chicago as a unit of the group of buildings for medical education which will be erected in the near future. Funds have been provided independently of the university's $17,500,000 development program.

THE Arkansas legislature, which recently adjourned, appropriated $650,000 for new buildings to be erected at the University of Arkansas in the next biennial period.

THREE gifts totaling $360,000, to complete the $5,000,000 endowment fund for Hampton and Tuskegee institutes, have been received by the committee. Edward S. Harkness gave $250,000; Mrs. Stephen V. Harkness, $100,000, and Mrs. E. H. Harriman, $10,000.

GLASGOW TECHNICAL COLLEGE, England, has received the sum of £50,000 from an anonymous donor.

DR. AGNES L. ROGERS, of Smith College, has been appointed professor of education and psychology at Bryn Mawr College.

W. R. HALLIDAY and S. R. Lott, formerly assistant professors in the department of machine design at Stevens Institute of Technology, have been advanced to the rank of associate professors. J. C. Wegle has been made assistant professor in the same department. Professor Wegle has also been appointed acting dean of student activities.

DR. ALFRED P. LATHROP has resigned his position in Queens University, Canada, to accept a position as associate professor of organic chemistry in Oberlin College.

ARTHUR CLARK TERRILL, for the past four years professor of mining engineering at Pei Yang University, Tientsin, China, is now lecturer in geology at the California Institute of Technology.

AT the University of Aberdeen, Dr. A. Bowman has been appointed to the lectureship on the scientific study of fisheries, in succession to Dr. T. Wemyss Fulton, resigned.

DISCUSSION AND CORRESPONDENCE

MARKET CHARTS AND THE LAW OF SUPPLY AND DEMAND

IN general when the price of a commodity is lowered the demand for it increases, slightly or considerably, as the case may be. This response of demand to price changes is, of course, vital in all marketing problems. Although not very precise relations between price and demand are known, curves may be drawn showing their general trend and salient characteristics.

Such plotted curves—market charts—may also be drawn showing the production of a given commodity (*e.g.*, automobiles) at each price. This curve, together with the corresponding curve showing demand as a function of price, give a direct relation between supply and demand in mathematical terms as exact as the data from which they are drawn, namely, the slopes of the price-supply and demand-price curves. Finally, areas under the curves are volumes of business, actual or to be expected, as the case may be.

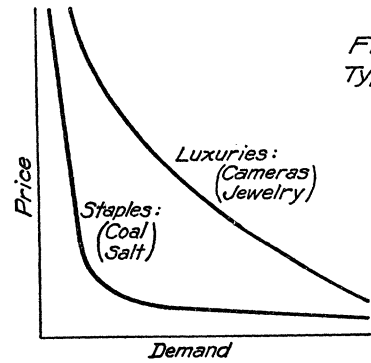

Fig. 1. Types

These characteristics are illustrated in the accompanying figures. Fig. 1 shows two extreme types of curves, namely, for staples and for luxuries. The consumption of coal, salt and the like would be very little affected by price. If the price dropped to one