

especially adapted to this or that professional student. Subjects such as these are all prerequisites to pharmacy as well as to the other professions and should be so considered. A well-equipped junior or university college should be able to teach these subjects quite as well as the very best professional school. We should not become too sentimental about prerequisite studies except to see to it that they are given by properly trained individuals. Let us make our schools of pharmacy real professional schools devoted strictly to the professional aspects of pharmacy and leave training in the prerequisites to others to carry out.

The modern intellectual development of any young man or woman falls quite naturally into two main divisions; *first*, a non-technical, non-professional, so-called cultural part, and *second*, a technical or purely professional part. We might very properly divide the four-year course in pharmacy into two equal biennial periods. The first period should be devoted to the acquisition of purely cultural subjects together with the necessary prerequisites for later pharmaceutical study. This may be taken in an accredited junior college or in the first two years of a college of pharmacy offering a complete four-year course. The second two years could then be devoted to an intensive and concentrated attention to the professional content of pharmacy, stressing not only the scientific side but also the economic or business side. A program of this sort is in line with practices in other professions, and the sooner we enter their company and adopt their point of view the sooner we shall enter into our professional birthright and take our proper place with the professions of medicine and dentistry in helping solve the great problems of health and disease which are so very fundamental and important to our age in civilization.

ABSTRACTS OF PAPERS PRESENTED BEFORE SCIENTIFIC SECTION, A. PH. A.
WASHINGTON MEETING, 1934.

"Penetration of Volatile Oils and of Fixed Oils and Fats through the Intact Skin," by David Macht.

A number of powerful pharmacological agents were incorporated into various fatty bases employed for making ointments; and their penetration through normal intact skin was studied by observing the effects produced by absorption, if any, of the drugs. In another series of experiments various volatile oils, as well as some of their active chemical isomers, were similarly used. Constituents were applied directly to the skin, and absorption phenomena were studied and compared. This research is of importance in connection with the use of various vehicles for the incorporation of active drugs to be applied to the skin.

"The Assay of Chloral," by Donald C. Grove, Edward M. Hoshall and Glenn L. Jenkins.

The present official method for the assay of Chloral is shown to be inaccurate. A method is proposed which is based on the conversion of the chlorine to chloride in a simple pressure bottle and a determination of the resulting chloride by argentimetric methods.

"Some Observations on the Stability of Quinine Sulphate during Storage," by L. E. Warren.

Seven packages of freshly prepared quinine sulphate were stored under conditions simulating those obtaining in prescription dispensing. The packages were opened at varying intervals and small portions removed from the surface of the material without disturbing the remainder. The intervals from opening to the time when the product became stable (ceased to lose weight) were recorded. In a climate comparable to Washington, D. C., the salt progressively loses water of crystallization until after 4 to 12 months it contains about two molecules (4.6%) after which it remains practically stable.