

## Geology and Geography

Chairman: G. T. WICKWIRE, Hanover College

Professor W. T. Buckley, Indiana University, was elected chairman of the section for 1943.

### ABSTRACTS

**Civilian defense geography of Valparaiso, Indiana.** N. S. AMSTUTZ and A. H. MEYER, Valparaiso University.—The organization of the civilian defense program for the various urban communities in the United States creates a novel demand for geographic mapping of the defense type. One of the principal responsibilities is the preparation of zone and sector maps on which are placed various conventional symbols. In accordance with these principles a large map of the entire city and twenty-one sector maps have been prepared for the city of Valparaiso.

**Geographical regionalism of world problems.** A. H. MEYER, Valparaiso University.—America's total defense participation in the present global war has revealed the need for new type courses in high school and college geography. Guiding principles for the development of future courses are presented.

**Indiana's petroleum supply.** WALLACE T. BUCKLEY, Indiana University.—A study was presented of Indiana's requirements for petroleum products, particularly gasoline, in relation to a) production of petroleum in Indiana and adjacent states; b) crude oil and gasoline pipe lines; c) location and capacity of oil refineries.

**Secondary air flows of the northern hemisphere.** A. V. LOTT, Sellersburg.—The primary movements of the basic wind system tend to produce two secondary air flows from each unit of circulation. A working knowledge of the formation and movements of these air masses is expected to be of great value in long range weather forecasting.

**Nature's explanation of the climates of yesterday.** A. V. LOTT, Sellersburg.—The outstanding feature of the climates of today is the warm dry period that now prevails near latitudes thirty degrees north and south of the equator. A theory is presented to relate present weather phenomena to climatic changes that have occurred in past geologic ages.

**Important minerals in the sands of Florida.** WILLARD B. PHELPS, DePauw University.—The beach sands of Florida contain the heavy minerals, ilmenite, rutile, and zircon, which are important to our war industries at the present time. This paper discussed the natural concentrations of heavy minerals, their areal extent and depth, and their geographic and geologic location in the state of Florida. Mineralogical analyses of the important districts show definite promise.

**An unusual specimen of "Pencil" Marcasite.** ERNEST RICE SMITH, DePauw University.—A considerable specimen of "pencil" marcasite was uncovered this summer in the Greencastle quarry of the Midwest Rock Products Corporation and called to the attention of the writer by Mr. R. R. Foley, Superintendent of the quarry. Its geological location, characteristics, and possible origin were discussed.

**A St. Louis-Lower-Chester Section in Greencastle Township, Putnam County, Indiana.** ERNEST RICE SMITH and RICHARD A. SCOTT, DePauw University.—Well logs in Section 29, Greencastle Township, correlate with the known St. Louis-Beaver-Bend section in the deep quarry at the Indiana State Penal Farm west of Putnamville and lower Chester formation through the sample in the well-known Reelsville Hill. This extends the known areal distribution of the lower Chester eight miles north-east of Reelsville.