



FACILITIES—New housing project for married graduate students on East campus includes play areas for kids, bike shelters and sufficient parking area.

# Engineering Prof Develops 2 Gauges

Dr. George U. Oppel, professor of engineering mechanics, has invented two types of photoelastic strain gauges which provide accurate, visual indication of principal stresses and strains without complicated computations.

The gauges—a photoelastic strain compass and a photoelastic strain magnitude gauge—are now being manufactured by Baldwin-Lima-Hamilton Electronics and Instrumentation Division in Waltham, Mass.

Oppel's gauges are direct-reading, self-contained instruments, requiring no external connections. They have built-in light polarizers which permit use in natural or artificial light.

The gauges can be used on wood, concrete or metal. They are glued directly to the surface of the specimen being tested. They are extremely light and relatively inexpensive and can replace the heavy, expensive electronic equipment necessary in the application of electrical gauges previously used for this work.

Oppel's gauges secure information formerly obtainable only from many rosettes of electrical resistance strain gauges, multiple metering units and hours of tedious calculation.

A number of these gauges may be observed together to provide an instantaneous indication of stress distribution over a relatively large area. The gauges were completed after Oppel, a native of West Germany, came to Penn State in 1956, but were based on his research dating back to 1937 at the Technical University of Munich.

The gauges utilize the "frozen stress" method which Dr. Oppel invented in 1936. This is the basic procedure used everywhere throughout the world in three-dimensional photoelastic stress analysis.

He also developed the "photo-stress" method for stress analysis of metal structures and the "frozen strain" method for three-dimensional strain analysis of rubber parts.

Oppel is an adviser on structural mechanics to the Army's Ballistics Research Laboratory. (Continued on page eight)

# Bateson Named Visiting Prof

Frederick Wilse Bateson has been named distinguished visiting professor of English at the University, effective Sept. 1.

A native of Cheshire, England, he has been serving since 1946 as University lecturer in English literature at Corpus Christi College, Cambridge University, in Cambridge, England.

In 1955, he was visiting professor of English at Cornell University and in 1958, visiting professor of English at the University of California at Berkeley.

He is a graduate of Trinity College, Oxford, where he received the bachelor of letters degree and also the master of arts degree, both with majors in English. He also studied in 1927-29 at Harvard University as a Commonwealth Fellow.

Professor Bateson's research has been in the field of literary history, with special concern for poetry, literature of the 18th century, and modern literature.

# Faculty Leaves

## Benton Granted Leave

Dr. Thomas C. Benton, professor of mathematics, has been granted a leave of absence from Feb. 1 to June 30, 1961.

Dr. Benton plans to go to England for a couple of months to consult on courses taught in advanced studies on hydrodynamics and similar fields. He also plans to do some research in applied mathematics.

## Bloom to Do Research

Dr. James R. Bloom, associate professor of botany and plant pathology, has been granted a leave of absence from Jan. 1 to June 30, 1961.

Dr. Bloom plans to spend this period at North Carolina State College, Raleigh, N.C., studying and doing research in the field of nematology.

## Mann Granted Leave

Charles W. Mann, Jr., curator of rare books and manuscripts in the University Library, has been granted a leave of absence from Oct. 1 to June 30, 1961.

Mr. Mann will attend Rutgers University Graduate School of Library Service to work on his master of library service degree. He will study means and methods of working with rare books.

## Henninger to Write

G. William Henninger, professor of music, has been granted a leave of absence from Sept. 1 to Aug. 31, 1961.

During this period he plans to write a textbook in the field of music theory.

# University Sets Language Post For Wadsworth

James B. Wadsworth, who served during the past year as visiting professor of French at Queens College, Flushing, N.Y., has been named associate professor of Romance languages at the University, effective September 1.

A graduate of the University of London, he completed work for his master of arts and doctor of philosophy degrees at Harvard University.

In 1947, he was named a teaching fellow in French at Harvard and continued there until 1959 as instructor and later, assistant professor of Romance languages.

Wadsworth, who speaks French and Italian fluently and reads easily French, Italian, Latin and Provençal, as well as Old French, is widely recognized as a specialist in French and Italian literature of the Medieval Period and of the Renaissance.

He is at present planning the publication of several books, one on the intellectual life of Lyon, 1473 to 1503; another on a critical edition of Ficino's "Sopra lo Amore"; and a third on an edition on Villon.

## Chem Research Grant Gives Dixon Renewal

Dr. Joseph A. Dixon, associate professor of chemistry, has received a renewal of support from the American Chemical Society, Petroleum Research Fund, for his research.

The new grant of \$8,280 will assist research on "The Nuclear Magnetic Resonance Spectra of Some Higher Hydrocarbons."

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