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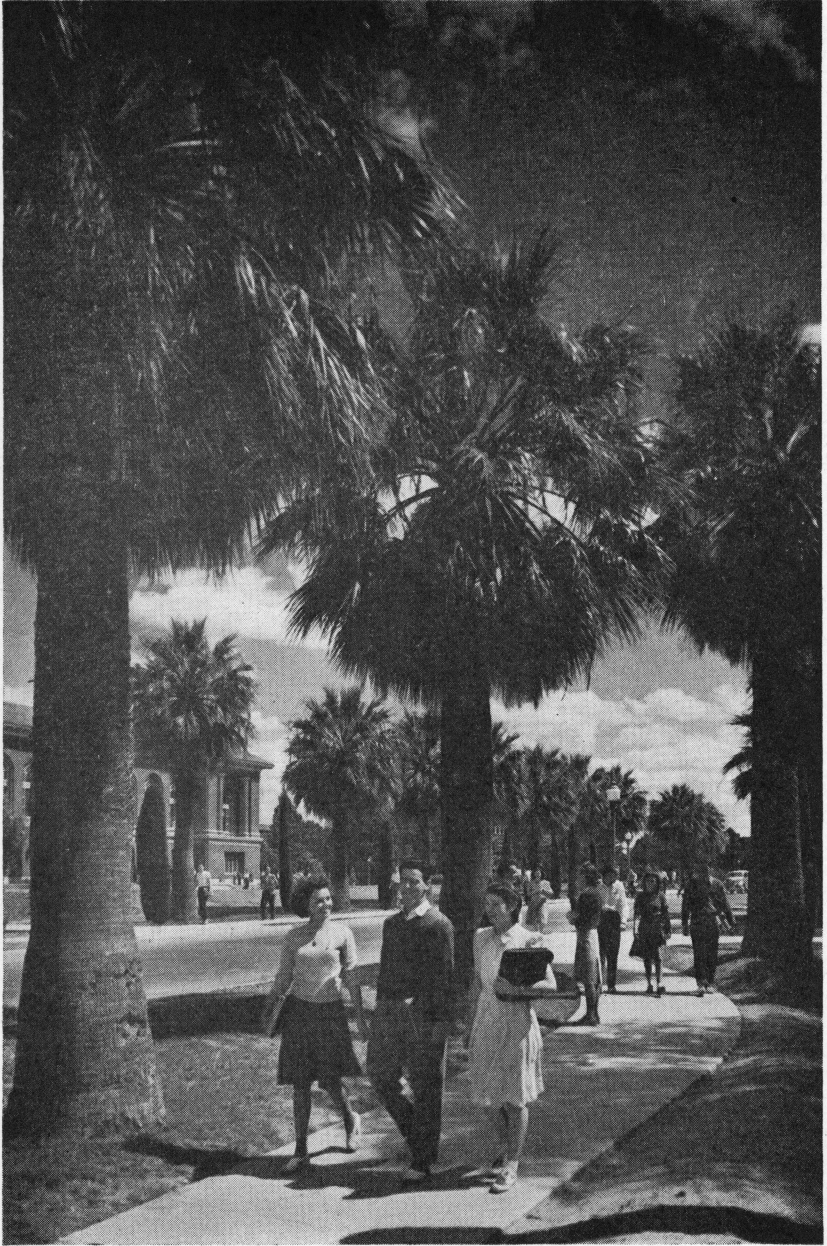
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CAMPUS SCENE NEAR THE LIBRARY
University of Arizona

The University of Arizona

A Sketch

ALFRED ATKINSON*

IN 1862, fifty years before Arizona attained statehood, the territorial legislature passed a bill authorizing the establishment of a state university. This action was not followed by the necessary appropriations so that the University was not started at this early date. The action, however, reflects an interest in higher education on the part of the pioneers of the state.

The University of Arizona was later established by an act of the territorial legislature passed in 1885. Along with this legislation, modest appropriations were provided, and the University had its beginnings soon after this time. Since what is now the state of Arizona continued as a territory for twenty-seven years after this date, this enabling legislation for higher education shows the continuance of the determination of the pioneers to provide educational opportunities at all levels for their sons and daughters and the generations to follow.

Arizona is a state with a population of a few more than half a million persons. Its higher educational pattern was laid out to meet the needs of a state of this size; there is a single state University, two efficient state teachers' colleges, and two junior colleges. The state provides modest appropriations for the support of the junior colleges, and the communities directly served provide the balance of the operating funds.

The University of Arizona has organized its educational offerings and research arrangements into nine colleges. These are the colleges of Liberal Arts, Mines, Engineering, Agriculture, Law, Education, Fine Arts, Business Administration, and Graduate Study. Associated with the College of Agriculture is the Agricultural Experiment Station, important research branch in the field of agriculture, and a well-staffed Agricultural and Home Economics Extension Service. The College of Mines includes the State Bureau of Mines, which carries on research and extension work in the mining field. The University also maintains a general Extension Division which provides extension and correspon-

* President of the University of Arizona.

dence courses, conducts a film library, a radio broadcasting studio, and a general publication and information service.

The enrollment of regular students entered for degrees in 1939-40 was 2,922. When to this is added the numbers enrolled in the correspondence and extension courses and the summer session, it brings the total up to 4,500. On the average approximately twenty percent of the students who attend the University enroll from other states and from countries outside of the United States.

To provide living facilities for the students, the University is developing a system of modern dormitories. At present it has dormitory space for 480 women and for 420 men. Associated with the University are chapters of nine national sororities and eleven national fraternities.

Like other colleges and universities, the University of Arizona is cooperating actively with the national defense services. Forty-two percent of the floor space of the institution has been turned over to Naval officer indoctrination, Naval aviation, and Army engineer trainees. With slight variations, the number of trainees on the campus approaches the twelve hundred figure most of the time. Out of the University faculty of nearly four hundred, fifty-five persons have been released on leave to enter war service or to assist in war-supporting agencies.

The state of Arizona has provided for the cost of buildings, grounds, and other facilities for an efficient University, and is providing the appropriations necessary for the conduct of such an institution. It maintains its place on the approved list of the Association of American Universities and is accredited by such associations as the North Central Association of Colleges and Secondary Schools.



Tree Rings and Climatic Cycles¹

A. E. DOUGLASS²

I. INTRODUCTION

AFTER MANY years' work on the rings of trees I have begun lately to think of the actual circumstances in 1901 under which the idea of their relation to climate first formed. I was making a three-weeks' wagon trip from Flagstaff to the towns of Fredonia and Kanab, close to the boundary between Utah and Arizona, with the county school superintendent. We crossed the old Lee's Ferry on the Colorado River and went up House Rock Valley to the places mentioned. One day on the return we came down that immense grade on the east side of the Kaibab Plateau. We tied the back wheels of the wagon so that they could not turn, cut down a tree and chained it to drag behind, uttered a prayer, and started the horses—and came down safely from the cool, moist, pine-covered plateau, *through the forest border*, into the dry and barren desert. In those horse-and-buggy days we had time to think, and the following day riding behind the horses slowly hour after hour along the north rim of Marble Canyon the lesson of that change of climate with altitude took form. In the descent our surroundings changed from pine forest to desert on account of decreasing altitude, because altitude controls the amount of rainfall, and rain controls the tree growth. If this happens in terms of location, why shouldn't something happen to the trees in terms of time?—that is, from year to year, with the strongly changing annual precipitation which we knew so well. Since the sun's heat keeps our atmospheric machinery in motion, wouldn't it be quite reasonable to think of slow changes in the sun impressing themselves on our weather and so on trees; and therefore wouldn't it be reasonable to search for the sunspot or other solar cycles in tree-ring growth?

A little over two years later that idea took shape in actual measurements of the rings of the pine trees near Flagstaff, and years later in 1911, after thousands of measures and many comparisons between trees, the principle of cross-dating the rings of trees by means of patterns formed by successive rings was established.

¹ Based on a lecture to the Association of Western State Engineers, Phoenix, Arizona, December 8, 1938. Revised April 17, 1944.

² Professor of astronomy and dendrochronology; director of the Tree-Ring Laboratory.



Dr. Douglass is holding the oldest specimen in the University of Arizona Tree-Ring Laboratory—charcoal from an ancient prehistoric ruin. It is wrapped in cotton. Other specimens on the desk carry key and important dates back through the centuries.

II. CROSS-DATING AND CHRONOLOGY

Cross-dating is done by identifying the same pattern in the rings of different trees; it was first done by the writer in February, 1904. It became accepted as a fundamental operation in tree-ring work in 1911, and it has led to all the developments described here and elsewhere, of which the first and perhaps the most important for us is the climatic interpretation of ring growth, recognized from very early years but first formulated in 1932.

One of the striking results of the use of cross-dating has been the extension of ring chronology backwards or forwards by means of new specimens. Thus we would find a certain pattern in the central parts of a modern tree, and find the same pattern in the outer parts of a tree cut by the Indians three hundred years ago, whose central rings grew centuries before the earliest rings in modern trees. Many hundreds and even thousands of such beams have made it possible to build chronologies of great length in this region, where the usual life of a tree is from two hundred to five hundred years.

This construction of long chronologies, one recalls, again, is done by an application of cross-dating, and cross-dating is intrinsic evidence of climatic effect, and we have found the climatic effect in our region to be mainly a record of rainfall, of which the winter rain in northern Arizona is much more important than the summer rain. Thus we have developed a very excellent rainfall history back to about 230 A.D. With all this unique material available, the matter of history of changing cycles and the possible presence of an eleven-year cycle became a subject of importance, and an instrument was developed for suitable testing.

III. THE CYCLOSCOPE

A cycloscope was invented in 1913-14. The immediate purpose was to have an instrument that would readily test for the presence of an eleven-year cycle in the tree-ring records. While this was a real objective, the outcome has been to the speaker a fundamental shift in methods of cycle approach, which has opened up an immense field for investigation heretofore left by the wayside; just as in some of the early mines of Arizona, available values were retained and those unavailable went off in the dump; then someone invented a process for better extraction of the ores, and secured splendid values from the waste dumps.

The cycloscope was built on a desire to study cycle lengths directly and not by the indirect method of amplitude and phase which (the latter form) was extensively developed by Sir Arthur Schuster over thirty years ago.

The cycloscope gives automatically and almost immediately a pattern which can be read in terms of cyclics (periodicities either stable or unstable) and their changes. Any change can be seen at once and its time of occurrence determined. This is the instrument whose extraordinary speed of operation and whose subtlety of results has opened the gateway into a great mass of important material heretofore discarded.

IV. WORK OF THE CYCLOSCOPE

All curves are investigated for all cycle lengths within the compass of the instrument. In twenty years' use of it on climatic and tree-ring cycles I have reached the definite opinion that apart from the day, the month, and the year or their variants there are no permanent cycles in climatic changes. There is left then an immense jumble of cyclics. One of the best hydrologists in this state said to me, "You get too many cycles." In 1926 we found that while not dealing with permanent periods we did have a definite group or complex of cyclics, these unstable periods. How could we show they were not accidents? The answer was exceedingly simple: we show it in just the same way that we derive any period from a mass of data. We simply add together the cyclic results of a substantial number of contemporary tree-record analyses from a wide area, fifteen or more, an analysis which perhaps will take us an hour to make, using say 175 terms each and giving cyclics between five and thirty years. When these are added we get the number of occurrences of different cyclic lengths in close overlapping groups over this range. This is plotted in a curve and called a frequency periodogram. It has the accidental features largely neutralized and shows what is common to the trees, as in cross-dating, and therefore something to be taken as climatic.

Our source material of long ring records is so vast that we can do this for different geographical areas and widely separated geological periods. We have obtained two highly interesting results: first, that several different large areas tested give the same cyclic complex but with some variations in amplitude; and second, wide intervals of time agree—even geologic time, except the ice ages; and third, that this complex is consistent with one derived from the annual sunspot numbers. It is interesting to add that in our long historic climatic chronologies (two over a thousand years long) we find certain intervals showing an eleven-year-plus cyclic and some interval when there was a ten-year cyclic but no eleven-year one. It is possible that the S.S. cycle changed. Near 1700 the eleven-year cycle disappeared for seventy years during the dearth of sunspots. We suspect that its near absence was characteristic of the glacial ages.

Mr. Edmund Schulman and I, working on rain storm maxima during the recent sunspot minimum of 1932-33-34 as expressed in three-day averages, find a frequency periodogram that shows strongly the single rotation of the sun, close to twenty-seven days and approximately the double value of about fifty-four days. We believe that our dry region of the southwest had a tendency to show solar rotation in the recurrence of storms during the last sunspot maximum.

We have obtained other evidences of relationship to the sun. We have found an eleven-year plus cycle strong in north-Germany trees and in Swedish trees, and we have found that this breaks up into two crests, usually unequal, in the Arizona trees. I might add that we have checked and found correct the results of C. C. Wiley in Iowa that certain agricultural areas in that region show a weak eleven-year plus cycle with two crests (a form that I have called the Hellmann Cycle).

V. LONG-RANGE FORECASTING PROBLEM

Our associate Mr. Edmund Schulman has completed a report on the Runoff of the Colorado River—for 500 years derived from tree-ring records. This was at the request of and sponsored by the Management of Boulder Dam. On its receipt they called by long-distance phone urging upon us the great need of improvement of forecasting the runoff and our water supply for some three years in advance. We who have lived a long time in Arizona fully realize the urgent need, especially at this time.

In accordance with this war need, we have been making every effort along two necessary lines. First, we have extended tree-ring and water supply records to cover the Southwest. This has been carried out through Mr. Schulman's unique skill in recognizing the sites where trees give these vital records. The extension of these collections by Schulman to certain regions in the South American Andes is urgently needed to fill in the summer half of every year which is poorly represented in our Southwestern trees.* At the same time the writer has renewed a study of possible effects on weather of certain influences from the sun. He has worked in this line at several times in the last forty years, each time meeting obstacles and after long delay, overcoming them. Now with Schulman's superb ring records of hundreds of years—and especially the hoped-for records from South America—and with our analyzing instrument the cycloscope which handles unstable periodicities and with certain techniques developed, there is a very promising outlook for improving long range forecasting of water supply on a worthwhile basis.

* We are trying to secure the financial aid necessary to undertake this trip.

Laboratory of Tree-Ring Research

A. E. DOUGLASS

ON DECEMBER 4, 1937, a Laboratory of Tree-Ring Research was authorized by the Board of Regents of the University of Arizona for the purpose of caring for the collections, equipment, property, and activities connected with the tree-ring work which has been carried on at the institution for many years. The expenses for collections and for the great amount of clerical work have largely come from the Carnegie Institution of Washington and the National Geographic Society. Other aid has come from many institutions and individuals.

Tree-ring analysis or dendrochronology was developed very largely on the campus of the University of Arizona. It has dated ancient ruins in the Southwest and supplied valuable climatic chronologies by using the annual rings of trees as a measure of the passage of years. The earliest building date in the Pueblo area thus obtained is A.D. 348.

The method has been extended to other regions and will eventually reach many parts of the earth; hence it is important to maintain a laboratory where methods may be improved and extensive, and in many cases unique collections may be preserved and extended, and where, by coöperation with the appropriate departments, elementary and advanced instruction in methods may be given.

The original purpose of tree-ring work was a study of changes in the sun by means of solar records that might impress themselves upon the trees in a dry country. A very accurate series of climatic conditions has now been established extending back at least to A.D. 230 and reaching with less accuracy to A.D. 11. The need to compare such records with solar data produced an analyzing instrument called the cycloscope. By this instrument unstable and temporary climatic effects may be studied—a new approach to climatic changes. This has led to the use of a "frequency periodogram" as a statistical method of expressing mass results. The cycloscope has rendered important service in demonstrating a relationship between cycles in the trees and in the sun. Important additions to our knowledge of solar rotation have been made by the study of daily observations of the sun and of terrestrial magnetism and other forms of radiation. Researches in solar radiation as affected by atmospheric conditions are part of the laboratory program.

Some half million rings have been identified and measured. The favorable conditions of these Arizona studies have made possible the contacts with several sciences, largely because the annual rings are made to provide a system of time measurement. Thus an exchange of scientific information is made with astronomy, mathematics (cycles), botany and ecology, climatology, anthropology, forestry, and to some extent, sociology and history.



Astronomical Studies

A. E. DOUGLASS

BECAUSE OF the many successive, and virtually faultless nights for observations, astronomical studies at the University of Arizona have become synonymous with the term "specific academic advantage."

The principal instrument of the Steward Observatory is the reflecting telescope of thirty-six-inch aperture, one of the largest telescopes on any university campus. Its three-focus arrangement of 15, 45, and 110 feet and a Ross large-field coma corrector for the Newtonian focus allow unusual flexibility of operation and a great diversity of fields of research. The work of the instrument is almost entirely photographic and has produced over 3,500 photographs of the moon, planets, stars of variable brightness, star clusters, and galaxies (island universes). The chief results of these telescopic investigations have been: (1) the optical demonstration of the existence of a Martian atmosphere, (2) the discovery of supergalaxies (archipelagos of island universes), (3) investigations of the structure and probable development of the galaxies, and (4) distances and structure of several star clusters.

Observational equipment further includes, for patrol and photometric work, a five-inch Cooke-type camera of thirty inches focus; an F:45 Tessar lens of ten-inch focus; and a four-inch Brashear refractor for solar and instructional purposes in a building of its own. A sensitive photo-electric photometer with an amplifier for use directly on the telescope has recently been completed in the University Shop. For the measurement and reduction of photographs there are a Hartmann microphotometer, a thermoelectric photometer for photographic plates, a screw comparator, and computing machines.

Besides numerous small pieces of apparatus, mainly for instruction and demonstration, there are a fine Howard mean-time clock mounted in a temperature control room in the pier of the reflector and a radio receiving set for time service. During the year 1926-27 the position of the Observatory was established with reference to United States Geological Survey data as follows:

Longitude W. $110^{\circ} 56' 55.2''$

Latitude N. $32^{\circ} 13' 59.4''$

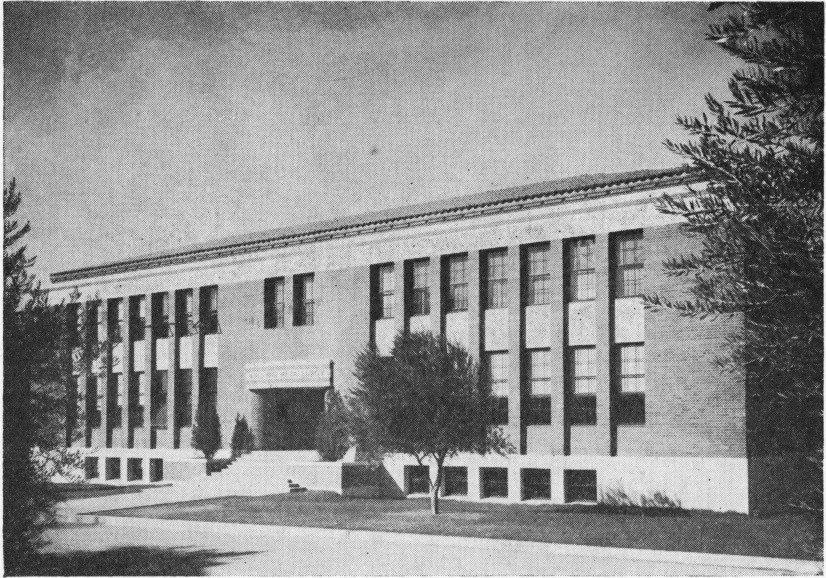
Altitude above mean sea level 757 meters.

Throughout the academic year the Observatory is open to the public after eight o'clock on two Tuesday evenings each month, in clear weather, for observation of the moon, planets, and other objects of interest. The normal attendance is about 75, but it is sometimes as high as 300. Approximately 2,000 people are thus accommodated annually, many of them from schools in and near Tucson.





LIBERAL ARTS AND HUMANITIES BUILDINGS
University of Arizona Campus



SCHOOL OF MINES, UNIVERSITY OF ARIZONA
Gift of the Phelps-Dodge Mining Company

Agriculture in the Desert

PAUL S. BURGESS*

OVER 400 years ago Francisco Vásquez de Coronado led his band of gold-hungry explorers into the rocky desert country which now forms a large part of the states of Arizona and New Mexico. Some years before Fray Marcos de Niza had preceded them into the southern borders of Pueblo land and had brought back tales of great cities which he stated he had seen in the distance. Coronado and his fellow Spaniards were seeking the "Seven Cities of Cibola" purported to be rich with treasure. All that they found were the mud villages of the Pueblo Indians. Wealth of a material sort these Indians did not have. However, had the Spaniards but known it, they were the first to view an agriculture which, according to archeologists, probably had maintained the pueblo and valley dwellers for several thousands of years.

This southwest country is unique in its history, in its climate, and in its agriculture. Arizona's agricultural past divides itself into three rather distinct periods: the primitive Indian agriculture extending back at least two thousand years and coming down to approximately 1540; the Spanish occupation of three hundred years, from 1540 to approximately 1840; and the American period, from 1840 to the present.

During the last thirty-five or forty years archeological research has revealed much of the primitive Indian period. The secrets of the pit houses, cliff dwellings, and pueblos have gradually been explained from the many artifacts which have been discovered, from the tree-ring method of dating which Dr. A. E. Douglass of the University of Arizona has perfected, and also from a study of some seventy-five miles of irrigation ditches in the Gila and Salt River valleys which in pre-historic days must have irrigated at least 12,000 acres of land. All substantiate the fact that for several thousand years a primitive, but very effective, irrigated agriculture was practiced. From carefully preserved remains we know that the principal crops were corn (maize) possibly indigenous to northern Mexico, tepary beans found wild in Sonora, lima beans, squash, cotton, and tobacco. We also know that dogs and turkeys comprised the only domesticated animals. Scanty rainfall through the centuries and the necessity for great care in the use of water

* Dean of the College of Agriculture.

had developed a type of farming, assisted by supplemental irrigation, which probably never has been excelled.

In 1540 came the Spaniards from the south; and with them the Catholic priests—those zealous agricultural missionaries who introduced into this primitive agriculture four things of great importance: the new crops—wheat, barley, grapes, pomegranates, and figs; domestic animals—cattle, sheep, horses, and goats; the use of wheels as a means of transportation; and firearms.

All of these innovations profoundly affected the life, the diet, and the habits of this Indian population. Textiles from wool, leather goods, and ability to travel by means of horses, together with the teachings of the padres, all had a definite civilizing influence. Time does not permit a discussion of the different Indian tribes and their reactions to these civilizing tendencies, nor of the extensive haciendas of the early Spanish inhabitants.

Probably we are a bit more interested in the American period which dates from the Gadsden Purchase. In the 1850's and 60's there was a great overland influx of eastern pioneers. These Americans brought with them improved farm equipment made out of iron and steel, better livestock, and new crops such as alfalfa, the grain sorghums, citrus, and many of the vegetables. They also brought with them the more modern methods of farming and livestock production.

It is estimated that there were approximately 5,000 acres of irrigated land under white control when the Morrill Act establishing the land-grant colleges was passed by Congress in 1862. During the Indian wars of the 1870's and early 1880's probably less than 10,000 acres were irrigated at any one time in the Territory of Arizona.

With this ancient heritage of agricultural tradition, the Arizona Agricultural Experiment Station was organized at Tucson on July 1, 1889, with Selim M. Franklin its first director. Active work, including the establishment of four field stations, was immediately begun. On October 19, 1890, the School of Mines and the School of Agriculture were established as the first units of the University of Arizona, and the Experiment Station made an adjunct to the latter. Thus, the Agricultural Experiment Station was the first part of the University to be organized. The first students were registered on September 26, 1891, when the University was formally opened.

Into this new and somewhat wild environment came the first staff of seven eastern-trained agricultural teachers and research workers. None had had experience with irrigated agriculture nor with many of the crops grown or being introduced into this semitropical region. These

were years of trial and error and of mistakes and successes. Instruction was largely on the high-school level; classes were small and entering students often poorly prepared. But time and perseverance brought steady improvement. The Indian troubles were over, railroads were being built, people in large numbers were coming to the territory, towns and farms were being established and, with these advances, more and more interest was being shown in the findings of the Agricultural Experiment Station and in the work of the College of Agriculture.

As time went on, bulletins were published on soils and irrigation waters, garden and field crops, insect pests and diseases, range livestock, dairying, and poultry; farmers' institutes were held, and more agricultural students were enrolled. Near Phoenix a field station for the study of dates and deciduous fruits was established. Canaigre and sugar beets also were planted. At Yuma citrus fruits, alfalfa, cotton, and vegetables received attention. Dry farming, the range livestock industry, cattle feeding, irrigation problems, the climate, and the reclamation of alkali soils all came in for careful investigation. The information being secured was used both in the classroom and in the field. While work in irrigated agriculture always has been stressed, it should be stated that, due to climate and topography, more than eighty percent of the state always will be used for range livestock production, which is the oldest and most permanent of our agricultural industries.

The erection of three large dams by the Federal Reclamation Service marked a great step forward. In 1909 the Laguna Dam on the Colorado River began supplying water to the Yuma Valley and Mesa development. In 1912 the Roosevelt Dam was dedicated. It, together with the smaller dams down stream, delivers water and power to the Salt River Valley. In 1929 the Coolidge Dam on the upper Gila River made available water and power to the Florence and Casa Grande areas. The reservoirs behind these dams have enormously increased the water supply and with it the irrigated acreage of the state. During the present year the Arizona legislature ratified the Colorado River Compact and the Boulder Canyon Dam Act and, with the approval of the Secretary of the Interior, Arizona soon will have available for expansion more than $2\frac{3}{4}$ million acre-feet of additional water from the Colorado River. This water, when put to beneficial use, should almost double the present irrigated acreage.

Time does not permit a detailed discussion of the growth and work of the College of Agriculture with its thirteen departments, five substations, and its extension service activities. Suffice to say that it has

endeavored to keep abreast of the constantly increasing demands for information concerning a rapidly expanding and complex production, and that it is trying adequately to prepare the young people of this state for useful lives in the fields of agriculture and homemaking.



Anthropology in the Southwest

EMIL W. HAURY*

THE UNIVERSITY OF ARIZONA is strategically located for anthropological work in general and for inquiry into the living and past peoples of the Southwest in particular.

The Arizona State Museum was founded in 1893 when Arizona was still a territory. As an integral part of the University, it has long devoted itself to research and interpretation of the State's native populations. Associated with the Museum and making full use of its facilities, is the department of anthropology in the Liberal Arts College. Here the student may take work through the master's degree level. A University-owned ruin a few miles from Tucson, the accessibility of many more ruins and nearby living Indians, offer unusual opportunities for direct observation during the normal winter curriculum as valuable aids to classroom studies. For the advanced students, these same resources may be drawn upon for dissertation subject matter. Extended summer field activities at low cost provide further concentrated and professional anthropological training.

The colonization of the American Southwest began millennia before the first white adventurers touched its soil in 1539. Fray Marcos de Niza in the spring of that year, and Coronado with his cavaliers and foot soldiers in 1540, penetrated a region which had already nurtured the development of a high civilization, that of the Pueblo Indian. These explorers failed, however, to find the fabulous riches which had lured them into a new land because gems and gold had no meaning to the native Americans of this area. Reconstruction of the pageant of human events prior to the arrival of the Conquistadores falls into the realm of archaeology. Probing in the varied, rich, and numberless ruins in the past sixty years have given archaeologists a vast body of knowledge for piecing together, skeleton fashion, the nature and achievements of some of America's early citizenry.

We know now that while the Southwest's climate was colder and moister than today, a consequence of the last great ice field of the Ice Age far to the north, Man was already here, living off the game and plant foods of the area as best he could. He was well acquainted with

* Head of the department of anthropology; director of the Arizona State Museum.

the native American horse, giant ground sloth, mammoth, mastodon, bison and other animals which were doomed to extinction with changing environment. This was more than 10,000 years ago and some scientists estimate that Man may have been here as much as 25,000 years ago.

For many millennia, as the climate gradually assumed its present characteristics, these pioneers to a new continent added little to make life easier and freer from want. But near the beginning of the Christian Era, the scene changed profoundly when corn reached the Southwest from Mexico. To those tribes which accepted it, corn brought security and leisure time. Thus vitalized, the development of arts and crafts beyond the bare utilitarian necessities, and the elaboration of social institutions were sure to follow. With the introduction of further food and economically useful plants, as beans, squash, and cotton, the opportunities for growth were ever widened. By A.D. 1000, and during the centuries immediately following, the Pueblo Indians of northern Arizona and portions of adjoining states had achieved high skill in architecture, in ceramic art, and in weaving. Their social and religious systems were equally evolved.

At about the same time, in the more arid lowlands of southern Arizona, an unrelated tribe, the Hohokam, had achieved the greatest feat north of Mexico. This was the construction of hand-dug irrigation systems aggregating hundreds of miles of canals for leading water to their parched fields. To the Hohokam, with their far-sighted and energetic leaders, with an investment of human labor in their soil relatively as great as that of many of our modern projects, should pass the title of "America's Master Farmers."

Many Indians of today in the Southwest can claim ancestry with the community house dwellers or the canal builders of a thousand years ago. Their progress from the distant and obscure horizons of time to the present, is a continuous story. But vital links and illuminating details pertaining to this march of events still need to be ferreted out. To the picture as it now stands, the anthropologists of the University of Arizona have contributed their modest share, and the opportunities today are as great as ever before to make lasting additions to knowledge in this field.

The study of the Southwest's earliest Man is yet in its infancy. Perhaps no phase of pre-history is as challenging as this, and we are only now beginning to realize the extent of the possibilities for research along this line. More than five decades of excavation in the larger ruins of the higher cultured peoples have created more problems than have been solved. Patterns of life remain to be worked out, the need for his-

torical reconstruction in the light of new evidence is ever present, and there are unstudied areas to attract the inquiring mind. Northern Mexico, allied by culture in early times to the southwestern United States, calls loudly for systematic researches.

Arizona's population of living Indians, some 50,000 strong, represents a dozen colorful tribes. They speak a number of unrelated languages and preserve to varying degrees their contrasting and aboriginal ways of life. To the ethnologist, to the social anthropologist, and to the student of race, all these pose absorbing problems. Each tribe is a laboratory for studies of many kinds, ranging from the general, as culture histories, to the specific, as race, language, social structure, religious patterns, and how the Indian is making the adjustments demanded by his contacts with a foreign civilization. It should be stressed that there is urgency for investigation along these lines now and in the immediate future because the old ways are fast being lost by absorption or extinction.



The Mineral Industry of Arizona

T. G. CHAPMAN*

THE COLLEGE OF MINES of the University of Arizona has prepared its students for the mineral industries since 1895. Three degrees are offered with majors in mining geology, mining engineering, and metallurgical engineering. The location of the College of Mines in the center of this important copper district offers excellent opportunities for students to visit and work in the mines and metallurgical plants and the geographical position also offers excellent fields for research in geology and metallurgy.

Referring to geology the rocks of Arizona reveal earth history as far back and as completely as it is shown anywhere. The unrivaled exposures permit relatively certain reading of the record, and as a result, many of the fundamental principles of geologic science have been developed by workers in Arizona and adjacent areas. The diversity in kind of geology makes Arizona a fertile field for a wide range of interests: stratigraphy, paleontology, structure, igneous geology, geomorphology, sedimentation, as well as the more commercial applications in mineral deposits, including underground and surface waters. The geologic history of Arizona covers long periods of sedimentation and several structural revolutions with accompanying igneous activity account for its important mineral deposits.

Arizona, as would be expected from its important position in the mineral industries, has made many important contributions in the fields of mining methods, mineral dressing, hydrometallurgy, and pyrometallurgy.

The commercial incentive for the production of minerals added to the scientific interest in the fields of geology and metallurgy has enlisted the efforts of the mining companies, the United States Geological Survey, the Arizona Bureau of Mines, the College of Mines, the United States Bureau of Mines, and the Arizona Department of Mineral Resources. Arizona will long be a fertile field for commercial activities in the production of minerals and for scientific work in the fields of geologic science and metallurgy.

* Dean of the College of Mines, University of Arizona.

The mineral industry of Arizona is recognized chiefly for its production of copper although appreciable amounts of gold, silver, zinc, lead, tungsten, molybdenum, vanadium, mercury, asbestos, manganese, fluorspar, clay, gravel, and sand have been produced. From 1858 to 1943, inclusive, the mineral production of Arizona is valued at \$3,621,000,000 of which eighty-five percent is copper, fifteen percent combined gold, silver, zinc, and lead and two percent the value of all other mineral products. Currently Arizona is producing more than one-third of the copper produced in the United States and about one-seventh of the copper produced in the world.

Although Arizona does not have within its borders the largest known copper deposit of the world or the largest known copper deposit in the United States, it does have an important concentration of large-scale producers and it is this concentration of important copper deposits that has permitted Arizona to retain its position as the leading producer in the United States since 1910.

Of the seven more important producing areas of copper in Arizona four of these, namely, Morenci, Globe-Miami, Bisbee, and Jerome started to produce prior to 1883 and the three remaining districts of Ray, Superior, and Ajo prior to 1917. It is significant that although these districts have long production records not one has become exhausted. The grade of ore has become lower and lower and some mines in certain districts have been exhausted but each district has survived and each is making a very important contribution to the war effort.

Prior to 1907 most of the production of copper in Arizona came from relatively high-grade ores which were smelted for their copper and associated gold-silver contents. Following Mr. D. C. Jackling's demonstration in 1905 at Bingham Canyon, Utah, that low-grade ores could be profitably mined and treated on a large scale basis the lower-grade deposits of Ray, Morenci, Miami, Inspiration, and Ajo were developed and worked. Economies in methods of mining and advances in the metallurgical treatment of ores have successively reduced the permissible copper content of low-grade ores that may be profitably mined and treated and currently ores with as low as 0.80 percent of copper are profitably worked. So-called marginal ores under favorable conditions have currently a copper content considerably less than 0.80 percent of copper. Most of the low-grade ores are crushed, ground, and the copper minerals separated from the valueless constituents by the flotation process. The concentrates so produced are smelted and the resulting copper bullion refined by electrolysis for purification of the copper and the recovery of gold and silver contents. The

Inspiration ore is crushed and treated by a hydrometallurgical method which produces electrolytic copper.

One of the older producing districts of Arizona is Morenci located in eastern Arizona. Although its production record started in 1873 and has been almost continuous since that date, it has a very promising future due to the recent development and the beginning of large-scale production from the Morenci low-grade ore body in 1941. This body of ore is known to contain about 250,000,000 tons which averages about one percent of copper. If this ore body is mined and treated at the rate of 25,000 tons per day, its life will be about twenty-eight years. Thus an almost continuous operation from 1873 to 1970 is assured from this district, and production may, of course, be further prolonged by additional discoveries of ore.

Bisbee is another district which has enjoyed a long production record. Starting in 1880 with the completion of the Southern Pacific Railroad to Benson and, with the exception of periods of business depression, operations have been continuous since 1880. During the past sixty-three years Bisbee has produced 900 million dollars of copper, gold, silver, lead, and zinc, and is currently producing minerals valued at over sixteen million dollars per year.



Latin American Cultures

JOHN BROOKS

THE Spanish department of the University of Arizona became this year the department of Latin-American cultures. This change is the culmination of a steady and gradual development. Since 1914 the department has offered a course on Latin American Literature, being in this respect one of the leaders. Castilian mannerisms were dropped in the early twenties. Our proximity to the frontier and our friendly relations with our own Spanish-speaking neighbors turned our minds toward the South. In less than two hours we could be in Mexico. Many of our students studied in Mexico during the summer. We attended fiestas and celebrations of Mexican holidays; we ate Mexican food, and heard Spanish on the street and radio daily. To us the Latin mind and culture have been a living reality always. Our graduate students turned naturally to Latin America for their theses.

To the standard courses of study, including Latin American Literature, we added Portuguese in 1940 and recently a seminar on Latin America for graduates.

In 1940 the authorities felt that the attention of the students should be directed increasingly to Latin America. To this end a major in Pan American Relations was instituted. Various departments in the College of Liberal Arts were already offering enough courses to justify this major. For example, in addition to the standard courses on Anthropology, this department was offering courses on the Races and Cultures of North and South America, the Races and Cultures of Mexico and Middle America, the Archaeology of the Southwest, the Ethnology of the Southwest, Southwestern Indian Art, and American Indian Languages. The opportunities for field and laboratory work in these subjects were of course exceptional. We had an excellent museum. In history and political science courses were being offered on the Latin-American Colonies, the Latin-American Republics, Mexico and the Caribbean, American Foreign Policy, International Law, and International Relations. (A course on Current Public Problems and Trends has since been added.) In the department of economics, courses on International Economic Relations and the Economic Geography of North and South America were being offered.

The possibilities of various combinations of these courses with one another and with courses offered by the Spanish department were noted and listed in a new inter-departmental major in Pan American Relations. The original plan was to round out this major gradually and coöperatively, but further progress in this direction must await the post-war period.

In addition to these advantages, the University has others which will appeal to the student of Latin America. The library has a very fine collection of Latin-American books, particularly in the Mexican field. The Brazilian collection is large and is growing. Even in the elementary work, attention is directed to Latin America. The oral approach is stressed from the beginning. Some advanced courses are given in Spanish. On the campus are various groups which are interested in Latin America: the International Relations Club, the Forum Committee, the Folklore Committee, the Pan American League, Sigma Delta Pi, and the Romance Club. The two Artists Series Programs here schedule at least two Latin attractions every year. The feeling between the English and Spanish-speaking peoples is very friendly. National holidays are celebrated jointly by those interested. The atmosphere here is conducive to the study and appreciation of Latin America.

In general it may be said that the department has pursued a sound, realistic, and forward-looking policy of expansion, based on the natural advantages of the university and assisted by the intelligent collaboration of the institution's officers and departments.



Challenging Frontiers¹

GEORGE JARVIS THOMPSON²

IN THE initiation ceremony you were welcomed to this company of scholars because you have shown the mental capacity and the will to achieve which give promise of leadership in your generation. While you gain this opportunity of comradeship with kindred spirits, it is to be emphasized that you also accept a personal responsibility for advancing the horizons of knowledge in terms of human achievement. Perhaps you may gain a perspective of the challenging frontiers of your generation if you can imagine yourself off the east coast of Japan on a brilliant winter morning, as Mrs. Thompson and I once were, with the sacred mountain Fuji rising from sea level in slender grace to its majestic height of over twelve thousand feet, clad in bridal veil of new-fallen snow. What a pigmy one felt before that awe-inspiring grandeur! If told you must scale that height, the spontaneous answer would have been: "It can't be done." Yet, it can be done, as the inimitable Halliburton describes in his *Royal Road to Romance*. Still, it becomes one to approach this great task in true humility, to gird himself by careful preparation, and to harden his courage not only to conquer the obstacles inherent in the project but to confound scoffer and cynic.

What are these challenging frontiers of your generation? One thinks at once of the wonders of modern science in the material world. The progress of the present generation in that vast branch of physical and chemical technology was brought home to me vividly when, just after Pearl Harbor, I was shown through the Hawthorne plant of the Western Electric Company, the manufacturing division of the American Telephone and Telegraph Company, in the environs of Chicago. I was impressed by the marvels performed by machine, and by the fact that only a handful of the thousands of employees had the over-all picture of the enterprise, but still more astounding was the reflection that only a century ago the very ground we trod was itself part of a challenging frontier—the Western wilderness. That made one really appreciate man's technical advance in a brief century. I was aglow with pride in my country and my age, when suddenly came the thought: What of the

¹ Delivered at the Phi Kappa Phi initiation banquet of the Cornell chapter February 24, 1944.

² Professor of law, Cornell University, and president of the Cornell chapter of Phi Kappa Phi.

progress in human technology in that same period? Then, indeed, did pride depart, for I had to confess that, aside from our American standard of living, teetering precariously far above the world level, and some amelioration of workers' conditions in wages and hours in the English-speaking countries, the world taken as a whole had retrograded to medieval cruelty, with human slavery on an appalling scale, and death and destruction to an extent both in area and intensity probably unequalled throughout man's history on this earth. Well may the cynic exclaim—to rephrase Goldwin Smith's famous epigram: "Above all nations is *inhumanity*."

Two frontiers challenge your generation. The frontier of physical technology still beckons the onward march of science. But of far more import to mankind today is the comparatively unexplored frontier of social technology in both the domestic and the international areas.

The frontier of what I have called "social technology," like the other, demands the conquest of or adjustment to natural laws, and most difficult of these is human nature. Some will ask, how can such a variable be termed a natural law? On the other hand, we have Abraham Lincoln's observation that human nature never changes. There you have the two extremes, but neither can be accepted—somewhere between lies the workable answer which must be discovered. Lincoln's remark was based on the fact that he had thoughtfully read his Holy Bible, where he saw, going back some five thousand years, a realistic portrayal of human nature from the depths of depravity to the heights of divine aspiration. Each picture found there has been repeated again and again down the pages of secular history. In my library is the autobiography of a Plains Indian of a century ago describing his warrior youth; the way his war party wiped out an enemy village was literally unexpurgated Old Testament. A generation ago scholarly pundits explained all that as characteristic behaviorism of a certain stage of primitive development. But what of today with its plethora of stark horrors? There is an ageless pattern in human nature demonstrating that it is, indeed, a natural law which we must learn to guide and direct to its highest destiny. That it is susceptible to guidance, our enemies in this war have amply proven. Though human nature, like fire and water, is a bad master, it can like them be made a good servant to mankind, so that all peoples may be assured of a chance to dwell in peace on this earth and enjoy in full measure the beneficent achievements of our physical technology.

Will Cornell meet this social challenge as successfully as it has met the material challenge of physical technology? Fortunately, recent

events have given Cornell an opportunity of leadership in the initiation of this supreme quest of the twentieth century. The announcement that the State of New York would establish here a pioneer School of Industrial and Labor Relations to bring together for mutual development present and future leaders in labor and industry carries with it as a necessary corollary the training also of leaders to represent the paramount public interest. Properly to integrate this new school into a general strategy of social technology on this campus would seem to make it imperative that steps be taken as promptly as may be to implement the proposed new School of Business and Public Administration, establishment of which was approved by the University Faculty in December, 1941.

The work of existing departments of the University dealing with various facts of the problem of human relations must be correlated to this great task; for example, anthropology, sociology, family life, rural social organization, education, law, philosophy, and psychology. Nor can the spiritual nature of man be neglected, for to do so would mean a program fatally deficient. All this will require inspired, unshackled vision, a revitalizing of the pioneer spirit that founded Cornell, both in program and in teaching methods. For instance, our orthodox method of teaching political science seems too abstract. Might not a more realistic adaptation of the laboratory method become the fulcrum of progress here as it did in the physical sciences? In view of the coming of the State School of Industrial and Labor Relations to our campus, would it not be in the public interest to place at Cornell also the Institute of Public Service, now proposed under the program of the Board of Regents to be established at Albany, that it might furnish a clinic for applied political science in local government, thus bringing our faculties and students into direct contact with city and county officials and their problems? Again, greater use might be made of factual research by both undergraduate majors and graduate students in these respective fields. For some time, I have been looking for a Doctor of the Science of Jurisprudence candidate to make a study of the price of law and order in Tompkins County. We assume that our community peace is as free as the air we breathe. The fact is that most of us would be astounded if we knew what we are paying annually to enable our women folk to walk the streets of Ithaca, day or night, unescorted and unafraid.

Opportunity is literally knocking at our door. That Cornell is alert is indicated by President Day's declaration in connection with the announcement of the new School of Industrial and Labor Relations. Not only will Cornell vigorously implement that new area, said he, but it

will continue to push forward its contributions to international relations. Our University may well be proud of its distinctive contribution during the past academic year to better international understanding and coöperation by the inauguration of the premier school of Russian language and contemporary civilization with emphasis upon the weekly workshop in a particular aspect of Russian life, conducted by an eminent authority in the special field. Magnificent as these achievements may be, they are not enough; there must still be the integration on this campus of the many related areas and disciplines into a comprehensive program of technology of human relations.

Of course, the challenge here outlined looms well nigh insuperable, but so did that of the technology of material things a century ago. The goal will not be reached in a day; perhaps not in your generation, but if you can actually break ground and prepare for the laying of the foundations by those who follow, you will have well earned a niche in the history of man's progress. Surely, the marvels of the past century in the technology of material things can be matched in a technology of human relations once we face this as an equally practical challenge to our existence.

The very success on the older frontier of physical technology is already threatening man's extermination, for at this moment those marvelous achievements have become a ghastly boomerang bringing colossal holocausts. Only as we overtake on this second, more difficult and challenging frontier, our progress on the earlier, can we hope to bring "Peace on Earth, Good Will Among Men," without which we perish.



Philosophy as the Love of Wisdom

*Greetings from Phi Beta Kappa at the Phi Kappa Phi initiation banquet, Cornell University*¹

E. R. B. WILLIS²

IT IS in place of Professor Sabine that I am to bring the greetings of Phi Beta Kappa tonight to the initiates of Phi Kappa Phi. The substitution is unfortunate. It would be well that your society, so widely representative of all the scholarly interests of the University, should be addressed by the Vice-President of the University, and that both societies, which make so much of the word, "Philosophia," in their mottoes, should be represented by the Professor of Philosophy. It is only in his absence that I am emboldened to make some remarks about this word.

To Phi Beta Kappa, philosophy is the guide of life, or its pilot. For Phi Kappa Phi, it rules the world. So far as I know, no official translation of its motto was ever adopted by Phi Beta Kappa. Its early critics, therefore, were able to endow it with various evil associations. One of them said: "Philosophy has been the watchword of infidels in all ages, and by its enchanting sound many unwary youths have been led to reject the only sure guide to Heaven." The founders of Phi Kappa Phi were more explicit. To them, philosophy was the "love of learning."

I am suggesting another translation, not as a substitute, but as a declaration of the high purpose that is common to both of these societies. I propose, then, that we never forget that philosophy means also the love of wisdom. This will provide us with a holy text to confound the critic I have quoted, and one that may well be an inspiration to ourselves: "Wisdom is the principal thing, therefore get wisdom, and with all thy getting, get understanding."

You members of these societies have great advantages. You are taught and learn by experience how difficult it is to establish truth in the fields of your research. Intellectual honesty and the surrender of all prejudices become second nature to you. You have a firm foundation upon which to build wisdom. But you have observed how rare the love of wisdom is. You know many researchers, narrow, opinionated, and careless of evidence in the general affairs of life, who are just the re-

¹ February 24, 1944.

² Vice-president of Phi Beta Kappa and associate librarian, Cornell University.

verse when they are dealing with truth in their own subjects. Surely there never has been a time in history when your special powers were more necessary to the public good. A confident soul long ago said, "Truth is might and will prevail." It is for you, nurtured in the love of wisdom, to determine how mighty, and how widely and how far it shall prevail.

Editorials

THE LIBERAL ARTS AGAIN

IT HAS been recognized for some time that the Liberal Arts and the type of training based upon them have been viewed with misgivings. When the Army and Navy laid out curricula based largely upon the sciences for war-time needs an emphasis was laid upon them which many have been ready to adopt as the pattern for the post-war college. When the military authorities placed the seal of their approval upon the languages, generally accepted as an important part of the Liberal Arts, these were to be studied from a strictly utilitarian point of view. Defenders of the humanities which seemed not to be needed were quick to react. Nearly every issue of the educational journals has its defense of the humanities and the Liberal Arts.

A general reappraisal of the cultural subjects is being made on many campuses. Nearly every institution has its post-war planning committee. In the Liberal Arts colleges, the stronghold of the elective system of studies, the underlying philosophy of the system has been challenged. It is charged that there is no justification in presuming that the inexperienced student is the best judge of what he should study. Some colleges are proposing curricula that are made up largely of required courses with a minimum of substitutions allowed. On the other hand, the student has vocational needs which must be recognized. If he expects to enter a profession or go to graduate school, a considerable amount of specialization is required. To meet the requirements of his specialty and complete at the same time what the curriculum makers demand as the minimum essentials of culture may be a very difficult task for the student to complete. The situation calls for caution and a display of real wisdom on the part of those entrusted with the guidance of students in the Liberal Arts.

DR. GUILD'S ILLNESS

A REPORT from the office of Secretary L. R. Guild at Pittsburgh in June states that he had been laid up for about two months because of a nervous breakdown. In addition to his regular duties at Carnegie Tech, he has been carrying others like so many of our members today. We do not know exactly what his public duties have been during the past year, but understand that they were in connection with the settlement of labor disputes. The JOURNAL joins with the membership of the Society in expressing a sincere hope that Doctor Guild's condition will steadily improve so that he can again cope with his many responsibilities.

AN APOLOGY

WE REGRET very much that the name of President August L. Strand of Oregon State College was given incorrectly under his picture which appears on page 5 of the March number. The editor's handwriting in preparing the caption was doubtless at fault, and as the name does not appear in the article which the cut illustrates, there was little chance of detecting the change. We can only apologize for a regrettable error.

What the Chapters Are Doing

UNIVERSITY OF ARIZONA

Spring Elections

At the spring meeting of the University of Arizona chapter eight seniors, three graduate students, and two faculty members were elected to membership in Phi Kappa Phi. Seniors chosen at this time include the following: Barbara Kilburn Kelton, Tucson, music education; Harry Joseph Lowe, Nogales, chemistry; Verna May Lusk, Douglas, music education; Johnne Rene Lyons, Amarillo, Tex., history; Helen Becker Smith, Peoria, Ill., piano; Margaret Jean Stahl, Borger, Tex., Spanish; Carlos Eugenio Velasco, Nogales, mechanical engineering; and Edith Mae White, Scottsdale, psychology. Those selected from candidates for advanced degrees are Yvonne Victoire Duffy, Phoenix, Spanish; Charles Louis Foreman, Tucson, mathematics; and Flor-

ence Saradell Reynolds, Tucson, English. New members elected from the faculty are Dr. Oliver K. Garretson, professor of secondary education and high school visitor, and Dr. Leon M. Pultz, head of the department of botany and range ecology and botanist of the Agricultural Experiment Station.

New initiates, together with four seniors elected in the fall, Herbert Jacobs, Jr., Halka M. Pattison, Arthur M. Roberts, and Fay Woodward, were entertained at a reception held in their honor following the initiation ceremonies.

By virtue of outstanding scholastic achievement, Fay Woodward was chosen as the senior to have her name inscribed on the Phi Kappa Phi plaque. Miss Woodward completed a Spanish major in the College of Education.

Officers elected for the coming year are: President, Patricia Paylore; vice-presi-

dent, Dr. E. B. Stanley; secretary, Mary Ellen Lauver; treasurer, Dr. Ian A. Briggs; and JOURNAL correspondent, Babette Luz.

BABETTE LUZ,
Journal Correspondent

BUTLER UNIVERSITY

Participation in Honor Day

The twenty-fourth observance of Honor Day was held on May 4 in Sweeney Chapel. With the graduating class wearing caps and gowns for the first time this year, newly elected members of Phi Kappa Phi led seniors to their seats.

Introduced by Pres. M. O. Ross after the processional of seniors and faculty members in academic attire, the invocation by Prof. D. E. Walker, and comments on the significance of Honor Day by Dean Frederick D. Kershner of the School of Religion and president of the local chapter, Dr. Arthur C. Garnett, associate professor of philosophy at the University of Wisconsin and former member of the Butler faculty, delivered the address of the morning. The subject of his address was "Intelligence in the Modern World." He said:

"Intelligence, coupled with good will, is needed to solve present-day and future problems in the modern world." Intellectuals have permitted social problems to take care of themselves; now social responsibility must be recognized. That is our first problem. The greatest danger in the post-war world is not to see its dangers. Nations divide into separate units with intense group loyalties and antagonisms threaten each other with mutual destruction. Isolationism in this country would encourage Russian and Chinese isolationism and sow the seed for another warring Germany and Japan and another world war which might not fail this time for the conquerors. The need for social justice, the security of labor, more equality, for personal sacrifices for the good of all must be recognized. Good will is not enough, but intelligent people must see the dangers and devote themselves to bringing the facts home to the community. The immediate future is big with opportunities to end war; eliminate poverty, disease; to learn to work together not against each other. The first half of the twentieth century has been and is a magnificent drama, the fourth act of which is now being played. When the curtain

falls on this act, the war will have ended in triumph for the allies. The fifth act, we cannot yet see. We must write the lines and play the rôle, and if we do it wisely, the next generation will rise up and call us blessed. This is the task of intelligence in the modern world."

Following the address, announcement of honors and awards was made by the deans of the colleges. Approximately one-hundred students were listed on college honor rolls and as members of honorary organizations and some thirty were given individual awards in recognition of scholastic achievements. Dean Kershner then presented the new members of Phi Kappa Phi. They are as follows:

Helen Louise Barron, Donald C. Brown, Joan Carey, Mary Louise Chappell, Christina Jean Cherpas, Elizabeth Ann Ginney, Wilma Dorothy Grabhorn, Mary Jane Hovermale, Ruth Krampe, Dorothy Newgent, Helen Irene Noffke, Betty Louise Power, Mrs. Mabel Irene Ross, Mary Margrette Shortemeier, Virginia Alice Skidmore, Mary Marjorie Smead, Elizabeth Mae Smith, and Mrs. Dorothy J. Volkman.

Graduate students elected to Phi Kappa Phi last summer included Panoria Apostol, Thomas Baker, Mrs. Margaret Brunson Rees, Esther Aldia Coffing, Mrs. Magdalene A. Davis, Garnett Marie Foreman, Mary L. Guillaume, Carl O. Keller, Mrs. Marcia Tarleton Miller, Mrs. Emma Grace Peed, Mary Edith Robinson, Mrs. Beulah Staples Stevens, Marie Helen Sullivan, and Mrs. Christine Neerman Urbauer.

Initiation and Dinner

Phi Kappa Phi observed its annual initiation exercises and dinner for the newly elected members on the evening of May 12 in Arthur Jordan Hall. Dr. Milton D. Baumgartner, professor of German, delivered the address, the subject of which was, "Some Similarities between the New Phi Kappa Phi Members and Goethe's *Faust*."

Retiring Members Honored

A dinner was held on the evening of the eighteenth of May in Arthur Jordan Hall to do honor to Dean and Mrs. Frederick D. Kershner, Prof. and Mrs. Milton D. Baumgartner, and Prof. and Mrs. Ross J. Griffeth. Dean Kershner and Professor Baumgartner are retiring at the end of this year and Professor Griffeth is leaving Butler to become president of the

Northwest Christian College in Eugene, Ore.

Professor Baumgartner was one of the charter members of the Butler chapter.

Dean Kershner is remaining on the campus as dean emeritus and will continue to teach in the College of Religion.

ESTHER A. RENFREW,
Journal Correspondent.

COE COLLEGE

At a business meeting on May 15 the Coe chapter of Phi Kappa Phi elected officers for the ensuing year. Dr. Boyd G. Carter, professor of Romance languages, was chosen president and Dr. Alice B. Salter, dean of women and associate professor of social science, was elected vice-president. Relected to the positions of secretary, treasurer, and JOURNAL correspondent respectively were Miss Alma A. Turechek, assistant professor of piano, Leroy M. Coffin, professor of mathematics, and Dr. Irving L. Churchill, professor of English.

IRVING L. CHURCHILL,
Journal Correspondent

DAKOTA WESLEYAN UNIVERSITY

The Dakota Wesleyan University chapter of Phi Kappa Phi had a very special privilege in granting honorary memberships in the fraternity to Dr. and Mrs. B. A. Bobb, prominent alumni of Dakota Wesleyan and pioneer residents of Mitchell, at a special chapel program on Monday, April 24. Dr. and Mrs. Bobb helped to get the local chapter established twenty years ago, contributing both moral and financial support to the project, which brought to Dakota Wesleyan the first chapter of this society in the state.

Dr. Alice Brethorst, president of the chapter, presided at the meeting and led the processional and recessional with Dr. J. H. Edge, president of the University, who gave the invocation. Mr. Walter Hasenmueller played the processional march and accompanied Dean Lyle Gilbert who sang a tenor solo.

After Doctor Brethorst related the history and purposes of Phi Kappa Phi, the honored guests were introduced to her and she presented each with the key and membership certificate of the organization.

Miss Bernice Brady, a Phi Kappa Phi

member since her own student days, presented Mrs. Bobb. A graduate from Wesleyan normal department in 1893, Mrs. Bobb has been a teacher in this community and active in the work of the Methodist Church and Dakota Wesleyan throughout the years.

Dr. J. A. Van Kirk, charter member of the Wesleyan chapter of Phi Kappa Phi, presented Doctor Bobb. After finishing his pre-medical training at Dakota Wesleyan in 1890, Doctor Bobb entered the medical school of Northwestern University, from which he was graduated on April 24, 1894, exactly fifty years before the date on which he became an honorary member of Phi Kappa Phi. Doctor Bobb served as a major in the medical corps of the first World War. He has been president of the South Dakota Medical Association and is a fellow in the American College of Physicians and Surgeons. He has long been a member of the Board of Directors of Dakota Wesleyan University and has served several terms in his present capacity as chairman of the Board. He has been prominent in community and church work. Doctor Bobb responded with a few words of appreciation for the honors bestowed.

At a recognition chapel service in March, Harvey Peterson, Kadoka, and Irene Hildeman, Mission, top-ranking seniors were presented as candidates for admission into Phi Kappa Phi. Also at this time Dr. E. G. Cobb, Miss Beryl Hoyt, Dr. H. W. Kloepfer, and Mr. John F. Krueger of the faculty were presented for membership. Dr. Joseph H. Edge, president of the University, was the speaker at this meeting.

The formal initiation of the candidates was held in Graham Hall parlors on May 3. Following the initiation dinner was served to members and guests in the private dining room.

At the business meeting the following officers were elected: Dr. M. A. Chase, president; Dr. J. A. Van Kirk, vice-president; Miss Beryl Hoyt, secretary; Dr. E. G. Cobb, treasurer; Dean Ruth A. Wilcox, correspondent to the Phi Kappa Phi JOURNAL; and Dr. H. W. Kloepfer, marshal.

RUTH A. WILCOX,
Journal Correspondent

UNIVERSITY OF DELAWARE

At a meeting of the University of Delaware chapter of Phi Kappa Phi, on May

16, 1944, the following new members were elected to the society from the faculty: Dr. G. Cuthbert Webber, of the mathematics department, and Dr. Edna Fredrick, of the modern language department.

From the student body: *Women's College*—Rosalie May Selby, Evelyn June Ritterson, Ellen Grace Van Dyke, Gloria Rosalie Weisberg, Viola Elizabeth Polari, Mary Margaret Smith.

Men's College—S. H. Greenfield, M. M. Santa, T. S. Mertes, George Schlesinger, S. L. Spiller, A. E. Fogelberg, R. S. Althouse.

From the A.S.T.P., R.O.T.C., students: A. S. Carroll, Jr., W. P. Dugan, J. F. Henry, J. S. Hopper, Arthur Millman, G. Samuels.

The last six men left campus for military service before their graduation, but had previously completed all requirements for election to Phi Kappa Phi.

On June 20, 1944, the University of Delaware chapter of Phi Kappa Phi held a meeting and initiated the above mentioned new members. Following the initiation, Dr. N. B. Allen, of the English department, spoke on "Parody and Burlesque in English Literature." The meeting then adjourned for a social hour.

OLIVE M. JONES,
Journal Correspondent

GEORGIA SCHOOL OF TECHNOLOGY

Election of Officers

A meeting of the Georgia Tech chapter of Phi Kappa Phi was held on May 23 at which time H. S. Weber presented the report of the nominating committee. Following their recommendations, the following officers were elected to serve for the next two years: R. A. Hefner, president; W. B. Johns, vice-president; A. J. Walker, treasurer; W. L. Carmichael, secretary and JOURNAL correspondent.

The retiring president, J. H. Howey, was awarded a life membership in the Society by the unanimous vote of the members.

Initiation

At a meeting of the Georgia Tech chapter of Phi Kappa Phi on June 2 the following members of the senior class were initiated into the Society: T. C. Bazemore, Jr., Atlanta, J. W. Butler, Dublin, Ga.; B. Garrard, Atlanta; J. G. Hammond, Atlanta; T. W. E. Hankinson, Ports-

mouth, Va.; W. S. Johnson, Davenport, Ia.; H. R. Lindenbaum, Forest Hills, N. Y.; R. E. Robinson, Atlanta; H. Samuel, Baltimore, Md.; R. S. Saul, Brooklyn, N. Y.

Because they were being called into service or because of earlier graduation the following seniors had been initiated at an earlier date: N. D. Abell, Monroe, La.; H. R. Bohanon, Muskogee, Okla.; J. L. Espy, Cordele, Ga.; F. J. Meadow, Danielsville, Ga.; D. Multach, Belle Glade, Fla.

After the initiation ceremony a dinner was held in the dining room of the College Inn. Dr. M. L. Brittain, who is retiring as president of the School, was the honor guest, and Prof. A. J. Walker presented to him a citation and award.

Doctor Brittain then gave an informal talk, dealing with some reminiscing of his interesting experiences during twenty-two years as president of Georgia Tech.

Citation and Award to Doctor Brittain

Dr. Marion Luther Brittain, member of Phi Kappa Phi since 1922, has exemplified in his life and accomplishments the high ideals of learning and morality which are the best marks of a member of the Society.

As a token of its appreciation of faithful service rendered to education and the generous spirit which inspired it, the Georgia Tech Chapter of Phi Kappa Phi presents to Doctor Brittain continuing active membership in the Society with all its rights and privileges.

W. L. CARMICHAEL,
Journal Correspondent.

ILLINOIS WESLEYAN UNIVERSITY

The annual initiation of Phi Kappa Phi was held February 23, 1944, followed by an address by one of our members, Dr. Will H. Johnson, whose topic was "An Hour with Carl Sandburg." A banquet, with twenty members attending was held.

The initiates were Dorothy Elizabeth Abberley, Mary Jane Batty, Pearl Dunn Hitch, Dorothy Rosina Iaggi, June Elizabeth Schultz, and Barbara Lou Stubblefield.

May 12, another initiation was held for Roy Foulke, who had been in service for a short time, later returning to finish his work on the campus. The initiation was followed by a social informal hour of eating together.

In April, the chapter with its new members, met together at the home of Mrs. Fred Hitch, one of the initiates. The life and words of Hendrick Van Loon were discussed by the new members for the benefit of the old members. A musical was given by the initiates from the Music School. A social hour followed a short business meeting.

Wesleyan chapter is starting an annual convocation supper to be held June 4. This is to include all alumni, initiates, and their immediate families, faculty members plus town members. We hope to make this a worthwhile event.

The new officers for the year 1944-45 are: Miss Bessie Louise Smith, president; Mr. William Beadles, vice-president; Mr. Ralph E. Browns, secretary; Dr. Mildred Hunt, treasurer; Miss Verna Harder, JOURNAL correspondent.

VIRGINIA A. HUSTED,
Journal Correspondent.

IOWA STATE COLLEGE

The chapter at Iowa State College held two initiations during the past academic year, each of which was marked with a banquet. These events were scheduled for December 9, 1943 and June 1, 1944. Dr. Margaret Sloss, chapter president, presided on each occasion and new members were welcomed by Vice-President Emery F. Goss. In one case the response for the initiates was given by Leon A. Kanegis, in the other by Jane B. Frahm.

The address for the December meeting was delivered by Justice Theodore G. Garfield of the Iowa Supreme Court. At the spring quarter initiation Rev. W. Murray Allen of Ames, Iowa, spoke on "A Time for Greatness."

December Meeting Initiates

Graduate students—Wilton R. Abbott, Theodore A. Bancroft, Fern A. Goulding, Mildred Moore, Edna E. Mundt, Mary G. O'Brien, Jack D. Ryder, Helen Phyllis Towne.

Undergraduates — Donovan Eugene Augustin, Robert William Bell, Delmar Lewis Bloem, Louise Jaggard Brown, Paul William Burke, William Wesley Chilcote, Marie Cecelia Conway, Helen Dahlberg, Fred E. Dickey, Joe Oliver Elliot, Robert W. Finch, Shirley Girton, Margaret Marie Hauck, Lily H. Houseman, Oris P. Idsvoog, Eric W. Isakson, Katherine Susan Jacobson, Carl Henry Jepson, Donald Rust Johnson, Juliet Ann

Johnston, Jack M. Jones, Iola Geneva Kaestner, Leon A. Kanegis, Betty C. Keith, C. Robert Landgren, Rachel Ann Lusher, Ethelwyn C. Miller, Dorothy Jeanne Moreland, Robert Arthur Najmon, Edward W. Otto, Wyane Edward Petersen, Gerhard W. Plaut, Kenneth Henry Randolph, Catherine Anna Reavy, W. Robert Schwandt, Lucille Anstey Stanley, Herbert G. Stoerner, Oscar Aluynne Towler, Victoria L. Voelker, Richard Alden Walker, Dean Allen Watkins, Mary Agnes Williams, Lionel L. Woolston.

June Meeting Initiates

Faculty — Rachel Hartman Edgar, George Franklin Stewart.

Graduates—Harold A. Birkness, John Henry Jensen, Jr., Tillman Marion Moore, Margaret Reba Murley, Soledad Payawal, Edgar P. Swanson, Vera F. Waite.

Undergraduates — Dorothy E. Arm, Jean Joan Black, Wayne F. Chapin, Lawrence L. Clampitt, Mary M. Cook, Janet Lois Crosby, Homer Eldon Dale, Joan M. Ellison, Jane Beverley Frahm, Charlene Fredricksen, Doris Lucille Gugeler, Lawrence James Howell, Burnell W. Kingrey, Kent S. Knutson, John Emil Lagerstrom, Richard Lloyd Lundvall, Winston Malmquist, Anna Lea Martin, John Edward Martin, Ilene Meyer, William Riedel Miller, Mary Patricia O'Leary, Joyce Nikalaison Price, Harris F. Seidel, Ellen Louise Seidell, Corrine M. Smith, Hazel R. Snavely, Margaret Cathryn Ralston, John Minard Stevens, A. Edwin Wickland.

MARTIN F. FRITZ,
Journal Correspondent

UNIVERSITY OF MAINE

The annual Scholarship Recognition Day program at the University of Maine, sponsored by the local chapter of Phi Kappa Phi in coöperation with the other honor societies of the University, was held on May 11. The program featured the award of scholarships to forty-three students of an address by Dr. Edwin M. Wright, head of the English department of Bates College, Lewiston, Me.

A joint committee in charge of the Scholarship Recognition Day assembly included a student member from Phi Kappa Phi, Phi Beta Kappa, Tau Beta Phi, Kappa Delta Pi, and Omicron Nu. In the award of scholarships, Miss Therna

L. Myers of West Sumner, Me., a junior in the School of Education, was awarded the highest honors by presentation of the Merritt Caldwell Fernald Scholarship as highest-ranking student of the junior class.

The names of senior Phi Kappa Phi members read on this occasion are given below with the major subject of study and residence. A few in the group had graduated in December and left the campus. The residence unless otherwise indicated is Maine.

Rena M. Ashman, Romance languages, Augusta; Giulio J. Barbero, zoology, Bangor; Mary N. Billings, home economics, Stonington; M. Elizabeth Brackett, English, Portland; William P. Bronsdon, dairy technology, Newton, Mass.; Helen I. Brown, education, Augusta; Elizabeth M. Clough, education, Auburn; Samuel W. Collins, Jr., government, Caribou; Weston S. Evans, Jr., civil engineering, Orono; Clara J. Harley, theatre, Augusta; Joyce R. Iveney, home economics, Eastport; Vinetta E. MacDonald, history and government, Brewer; Hughene R. Phillips, English, East Holden; Julia H. Robbins, home economics, Dover-Foxcroft; Carrie Henrietta Rowe, education, Bangor; John E. Suminsby, engineering physics, Northeast Harbor; Harry S. Thomas, Jr., engineering physics, Wilton; Dorothy I. Wilbur, education, Saco.

PHILIP J. BROCKWAY,
Journal Correspondent

UNIVERSITY OF MARYLAND

Initiation

The University of Maryland chapter of Phi Kappa Phi celebrated the initiation of fifteen students at a banquet on June 23 at the University dining hall. Mrs. J. B. Yaukey, who spent many years in China and has written about that country under the pen name of Cornelia Spencer, narrated some of the episodes in her associations with the Chinese people.

Those initiated were: *College of Arts and Sciences*—Shirley M. Wilcox, Margaret S. Clarke, Jane L. Boswell, Joan Rowe, and Nancy Holman.

College of Business and Public Administration—David Schwartz, and Lee J. Maisel.

College of Engineering—Morton S. Silberstein, Miriam K. Gerla, and Paul D. Arthur.

College of Home Economics—Merilyn

Henderson, Masako Nagao, and Edna J. Hovey.

Graduate School—Dorothy G. Miller and Edward Orban. John L. Milligan of the College of Agriculture and Barbara L. Love of the College of Arts and Sciences were elected to Phi Kappa Phi, but were unable to be present at the initiation ceremonies.

Award

The Phi Kappa Phi Award of a \$25 War Bond to the senior attaining the highest average among the initiates was won by Mr. Morton S. Silverstein with a four-year scholastic average of 3.968 out of a possible 4.0.

Elections

An election of officers was held at the meeting preceding the initiation, the new officers being: Miss Edna B. McNaughton, president; Dr. Margaret T. Goldsmith, vice-president; Miss Lenna L. Gross, secretary-treasurer; and Mr. J. M. Leise, *JOURNAL* correspondent.

J. M. LEISE,
Journal Correspondent

MASSACHUSETTS STATE COLLEGE

The annual spring business meeting of the Massachusetts State College chapter of Phi Kappa Phi was held on April 5, 1944, in Stockbridge Hall. Four undergraduates, one graduate student, and one faculty member were elected to membership in the society. The undergraduate members elected, all of the class of 1944, were Armand L. Benge, now studying at Harvard Medical School; Seymour Gold, a student at Tufts Dental School; Sylvia Rossman; and Dorothy E. Peck. Wilfred B. Shepardson, a student in chemistry, was elected from the graduate school, and Dr. Henry Van Roekel, chief of the laboratory of poultry disease control, from the faculty.

Prof. Clark B. Thayer was reelected president of the society; Dr. C. P. Alexander, vice-president; Prof. Arthur N. Julian, secretary; Dr. Frank A. Shaw, treasurer; and Dr. Marion E. Smith, *JOURNAL* correspondent. Dr. T. C. Caldwell was elected to the nominating committee.

The spring initiation for members elected to the society at the April 5 business meeting was held on Saturday evening, May 20, in the Old Chapel. Fol-

lowing the ceremony, Dr. Arthur P. French showed Kodachrome slides of New England scenes. A social period with light refreshments concluded the evening's program.

The annual Phi Kappa Phi Convocation was held on Thursday, April 27, in Bowker Auditorium. Pres. Herbert J. Davis of Smith College spoke on the subject: "The Burden of Knowledge." Faculty and student members of Phi Kappa Phi participated in the academic procession, and newly elected members were presented to the student body. Following the convocation program, President Davis was entertained at lunch at the Faculty Club by the officers of the society.

A special initiation ceremony was held on January 27, following the mid-winter commencement exercises, for Miss Charlotte Kaizer, who was unable to attend the fall initiation.

MARION E. SMITH,
Journal Correspondent

UNIVERSITY OF MICHIGAN

The semiannual initiation banquet of the Michigan chapter of Phi Kappa Phi was held at the Allenel Hotel, February 14, 1944. In the absence of the vice-president, Dr. Clifford Woody, Dean Lloyd S. Woodburne explained the purposes of the Society and presented the candidates, who were initiated by the president of the chapter, Prof. A. D. Moore. The principal speaker, Dr. Carl E. Badgley, professor of surgery, gave an illustrated address on chemotherapy in bone infection. Among the slides were many X-ray photographs and several case charts, as well as statistical summaries, by which Doctor Badgley demonstrated the control of acute bone infection under several new modes of treatment.

The following new members were initiated:

College of Literature, Science, and the Arts—Isadore Manual Singer, Harry Elecks Moses, Jane Faggen, Joan Lysbeth Clarke, Lois Elizabeth Brandenburg, Constance Anne Taber, John Thomas Van Aken, Ann Romeyn MacMillan, Serafeim Panagiotis Masouredis, Dorothy June McAlister, Lawrence Sims Bartell, Anita Uvick, Jean Baxter, John Frederick Hoffman, Norman William Bernhardt, Mark Jay Van Aken, John Mark Lynch, Aline Isabelle Halstead, Betty Sophia Schwartz Frankel, John Philip Hunt, Arlene Louise Hellenberg,

Ruth Virginia Griffin, William Edward Lewis, Mary Jane Wilder Jessop, Dorothy Sharon Dunitz.

College of Engineering—M. Alten Gilleo, Robert Edwin Miller, Raymond Eugene Tate, Jack Ruhoff Elenbaas, Roy Lafayette Glauz, Jr., George Arthur Harris, Edmund Herman Merz, Robert Cox Milnor, George Alanson Sawyer, Edward Orient, Arthur John Geib.

Medical School—James T. W. Robertson, Joseph Louis Fink, Linus Reed Cranmer.

School of Dentistry—Marvin Joseph De Roven.

College of Architecture and Design—Jane McRae Graham.

School of Education—Phyllis Levine, Margaret Roscelia Emery, Era Nell Rose.

School of Business Administration—Irene Joan Frazier.

School of Music—Mary Monica Laughlin, Sarah Elinor Hanby, Dagmar Marguerite Carter.

School of Public Health—Wilber June Menke.

HELEN I. TRAVIS,
Journal Correspondent

MONTANA STATE COLLEGE

The following members were elected to the Montana State College chapter at the winter quarter meeting of the society held February 23, 1944.

Engineering Division—Paul H. Barrett, Bozeman; Clell L. Curtis, Richland; Robert F. Durnford, Florence; Ben A. Prichard, Livingston; Joseph W. Schmit, Lewistown; Eugene B. Turner, Wolf Point.

Household and Industrial Arts Division—Margaret Ann Cox, Bozeman; Alice E. Kellogg, Big Timber; Helen Rae McDermott, Fairfield; Audrey Louise Smola, Baker.

Science Division—Evelyn M. Battershell, Clancey; George G. Hazen, Highwood. There were no elections from the Agricultural Division.

LEORA M. HAPNER,
Journal Correspondent

UNIVERSITY OF NEVADA

The University of Nevada chapter of Phi Kappa Phi did not have its usual festivities at the close of the year's work. The chapter, due to war conditions, dispensed with the annual banquet. Instead a social evening was held on the campus, at which time Dr. Maurice Beesley

of the mathematics department gave an interesting discussion on graduate research work.

Mr. Proctor Hug, superintendent of schools, Sparks, Nev., was initiated. Mr. Hug was elected to membership in Phi Kappa Phi as a graduate student in education. He was awarded his master's degree at Commencement, 1944.

Acting President Charles H. Gorman, who was elected to Phi Kappa Phi last November, was presented an honorary degree of Doctor of Laws at the 54th annual Commencement exercises held May 22, 1944. "Mr. Gorman was awarded the degree in appreciation for unprecedented cooperation between the University students, faculty members, and the administration" stated Doctor Traner.

Professor A. E. Hill was retired May, 1944 after serving the University of Nevada as head of the English department for many years. Professor Hill will be greatly missed because of his gentle and kindly manner extended to all students on the campus. Those who had the pleasure of taking any English course from him went away with their life greatly enriched.

We regret that no undergraduate was elected to Phi Kappa Phi at this time, but war conditions seem to have made many changes on every college campus.

(MRS.) ALICE B. MARSH,
Journal Correspondent

UNIVERSITY OF NEW HAMPSHIRE

On May 22, at 4.30 in the afternoon, in the Alumni Room of New Hampshire Hall, was held the spring initiation of Phi Kappa Phi. The following students were initiated at that time: Margaret C. Boody, Vita R. Boruchoff, Carolyn Cleasby, Mary Connolly, Ruth Haynes, Lillian C. Hoyt, Grace A. Korb, Ruth E. Lloyd, Priscilla E. Marrotte, Jean M. Miller, Helen A. Pearce, Olive Sonnichsen, Dorothy Weinreb.

At the business meeting following the initiation, these officers were chosen for the year 1944-1945: President, Prof. Stanley R. Shimer; vice-president, Dr. Albert F. Buffington; secretary, Dr. Norman Alexander; treasurer, Dr. Donald H. Chapman; *JOURNAL* correspondent, Prof. Lucinda P. Smith; member of executive committee for two years Prof. Philip Marston; member of executive

committee for one year, Prof. Helen McLaughlin.

LUCINDA P. SMITH,
Journal Correspondent

NORTH CAROLINA STATE COLLEGE

New Officers

At an important business meeting held in Winston Hall, Room 101, on April 14, 1944, the North Carolina State College chapter of Phi Kappa Phi heard the annual reports of standing committees and elected the following officers for 1944-45: Gordon K. Middleton, president; Charles R. Bramer, secretary; Arthur C. Hayes, treasurer; William N. Hicks, *JOURNAL* correspondent.

Election of Murray G. James

Mr. Murray G. James, prominent attorney of Wilmington, N. C., was elected to alumni membership in the North Carolina State College chapter of Phi Kappa Phi on April 14, 1944. Dr. Thomas P. Harrison, chairman of the Committee on Alumni Members, presented the recommendation.

Mr. James graduated from North Carolina State College in 1918, and then served for one year as a commissioned officer in the Army. From 1922-1925 Mr. James was a member of the English department of State College.

In 1930 Mr. James became a member of the firm of Carr, Poisson and James. This firm is now Carr, James, and Carr of Wilmington, N. C., and represents many large business concerns such as Alexander Sprunt and Sons, Peoples Savings Bank and Trust, and Carolina Building and Loan Association.

When the North Carolina Shipbuilding Company was established in Wilmington, Attorney James was retained to handle the details of this big project, including the acquisition of the present plant site, which covers approximately one hundred and fifty acres.

The State College chapter of Phi Kappa Phi feels that it has significantly honored itself in honoring this very successful former graduate of the College with membership in Phi Kappa Phi.

W. N. HICKS,
Journal Correspondent

NORTH DAKOTA AGRICULTURAL COLLEGE

Initiation services were held April 25 for the following students elected during the winter and spring quarters: Mary Bristol, Polly Carter, Samuel Hess, Marjorie Lindemann, Lucille McMahon, Emma Skarpsno, and Mary Vail. Miss McMahon is doing graduate work at the University of Rochester and was unable to be present. At the annual dinner following the initiation services, the five ranking juniors, sophomores, and freshmen were guests of the chapter.

Dean A. E. Minard of the School of Applied Arts and Sciences delivered a thought-provoking address on the topic, "The Prospects of a Durable Peace." Mr. W. L. Stockwell presented the special Phi Kappa Phi award which he has provided for the past sixteen years. The recipient this year, William Griebstein of the School of Chemistry, was unable to be present, since he graduated in March and joined the Armed Forces soon thereafter.

O. A. STEVENS,
Journal Correspondent

OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

Our last JOURNAL letter reached the editor too late for publication in the March issue. Since it was written our members have taken time for their crowded schedules to participate in bringing an interesting lecturer to the campus, to elect new officers, and to elect new members.

In conjunction with Sigma Xi our chapter sponsored a lecture by Dr. Walter R. Miles, professor of psychology, Yale University, April 10, at 8 p.m. in the Prairie Playhouse. This was the annual lecture sponsored by the two honor societies at the College. Doctor Miles' subject was "Psychology and Military Aviation," and his lecture dealt with the part psychology is playing in preparing our fliers for successful combat. Despite a sudden spring shower, the lecture was well attended.

The newly elected officers for the year 1944-45 are: President, Hi Staten; vice-president, R. E. Means; treasurer, Max Mitchell; secretary, Cassie Hyde Hock; JOURNAL correspondent, Helen Sittel.

On April 17, new members were elected as follows, Oklahoma being the state of residence unless otherwise indicated:

Arts and Sciences—Jack Newcombe, Fletcher; Iris Newhouse, Shawnee; Grace Knox, Decorah, Iowa.

Home Economics—Robert C. Allen, Duluth, Minn.; Katherine Overton, Mangum; Martha Louise Smith, Jonesboro, Ark.; Clara Irene Hotchkiss, Leon, Kans.

Education—Katheryn Tompkins, Stillwater.

Graduate—Lida Russell, Vinita.

Formal initiation will be held the evening of May 26, followed by a banquet in honor of the new members.

HELEN SITTEL,
Journal Correspondent

OREGON STATE COLLEGE

The war emergency has greatly affected our Phi Kappa Phi spring initiation. The number of seniors, graduates, and faculty initiates was reduced to a mere dozen. Replacing the customary colorful banquet or breakfast, only light refreshments were served.

The initiation ceremony held on Saturday afternoon, June 17, 1944, in the Memorial Union Building, was witnessed by a number of faculty members with Dean F. A. Gilfillan and Profs. J. Fulton, D. M. Goode, D. Hill, and Ed Vietti assisting.

Those elected and initiated were as follows: Margaret Allison, Jule Claire West, Corvallis; Dorothy Barbour, Boise, Id.; Betty Behoteguy, Phoenix, Ariz.; Marjorie Chase, Nampa, Id.; Tom Henshaw, Jean Ward, Portland; Elizabeth Koudal, La Conner, Wash.; Dorothea Smith, Newberg; Jean Wahlgren, McMinnville; Evelyn Louise Zittercob, Ontario.

Dr. Rosalind Wulzen, the faculty member elected this year, an associate professor in the department of zoology, has received national recognition for her research which led to the discovery and isolation of the new anti-stiffness vitamin.

At the conclusion of the initiation ceremony, the following officers were elected: Dr. D. D. Hill, farm-crops department head, president; Mrs. Mable Winston, assistant dean of women, president-elect; Ed Vietti, assistant professor of secretarial science, secretary-treasurer; Dr. J. W. Ellison, professor of history, correspondent; and Dr. S. H. Peterson, head of the English department, member of the executive committee and past president.

Refreshments were served in the tea room of the Memorial Union Building,

and a brief social period closed the afternoon's program.

JOSEPH W. ELLISON,
Journal Correspondent.

RHODE ISLAND STATE COLLEGE

May Initiation

The local chapter of Phi Kappa Phi held an initiation and banquet on the campus May 19. The speaker of the evening was Dr. Israel Kapstein of Brown University who used as the title of his address "Writing and Writhing." Other participants in the program were Dr. T. Stephen Crawford, toastmaster, who recently began a term of office as president of the chapter, and Marcia Elizabeth Walcott, who represented the initiates.

In addition to Miss Walcott, a resident of North Providence whose curriculum was that of the general teacher training course in science, the initiates were Kenneth Norman Astill, Westerley, mechanical engineering; Janet Elsie Beaugard, Woonsocket, textiles course in home economics; Mary Ann Silverman, Providence, biology.

Summer Activities

The Honors Day program held at Rhode Island State College on July 5 differed from all preceding programs of a similar nature in that it was sponsored jointly by the Faculty Committee on Student Awards and the local chapter of Phi Kappa Phi.

Vice-President Harold W. Browning, convocation chairman, presented the vice-president of Phi Kappa Phi, Dr. Daniel Thomas, who conducted the Honors Day assembly. In addition to individual honors the Phi Kappa Phi scholarship cup was awarded to the Sigma Kappa sorority for the highest group scholarship.

Elected to Phi Kappa Phi were Mrs. Yvonne H. Yare, Providence; Miss Ann L. Hopkins, Narragansett; Miss Marion Aldred and Miss Norma L. Bugbee, Cranston.

R. K. CARLETON,
Journal Correspondent

UNIVERSITY OF SOUTHERN CALIFORNIA

On June 22, 1944, the University of Southern California chapter initiated forty-four students as follows:

Undergraduates — Elizabeth Ruth Backes, Leah Margaret Bell, Florence Pa-

tricia Ebey, Dorothy June Fuller, Nan Glennon, Eleanor Haas, Margaret Anne Hahn, Georgellen Hill, Alois Jokl, Robert Earl Langdon, Jr., Barbara Claire Moore, Lynn Louise Norby, Jacqueline Orlander, Nora Alicia Paredes, Sister Elizabeth Joseph Sherer, Mrs. Mary S. Verhine, Carolyn G. Wellborn, and Lois Ann Wellington.

Graduates—Barbara Joan Adams, Mary C. Bissell, Virginia Brewster, Rev. Robert Tarver Brown, Lucille Burckhalter, Sister Mary Joseph Caspary, Beulah R. Cleworth, Mary Louise Gaylord, Ted Edward Gordon, Otto Glenn Hahn, Alice Viola Hansen, Mrs. Rosemary S. Jones, Nelson Hui-Chao Lo, Ruby McBride, Lyle Leslie Miller, Eugene I. Mohr, Viola L. Moseley, Mrs. Frances A. Ohlheiser, Walter Thomas Phillips, Ruth Marie Pitchford, Jeannette Mary Scott, John Taylor Sinclair, Jr., Lottie Louise Stevens, Arthur Thomas Tait, Collette S. Thorndike, and Carl Algot Thorsell.

The following officers were elected for the coming year: Dr. D. Victor Steed, president; Dr. Harry J. Deuel, Jr., vice-president; Dr. Joy Leonard, treasurer; Dr. Florence R. Scott, secretary; and Dr. Francis Christensen, JOURNAL correspondent.

ELEAZER LECKY,
Journal Correspondent

UTAH STATE AGRICULTURAL COLLEGE

On May 25, 1944, the U. S. A. C. chapter initiated twelve students and one member of the faculty as follows:

Students—Don L. Bowen, Dorothy B. Bradshaw, James Edwin Dalley, Harold DeLaMare, Mary Leone Haight, Louise Pugmire Keetch, K. Joy Nelson, Mary Page, Mary Louise Hale Rector, Anna M. Theurer, Helen Irene Wadsworth, Marlow L. Wood.

Faculty—Prof. Ralph L. Calvert, mathematics.

Major Max T. Schnietker, chief of the neurosurgical service section at Bushnell Hospital addressed the chapter and its guests following the initiation ceremonies. He traced the development of medicine from the beginning of the seventeenth century to the present World War.

Dr. W. P. Thomas will continue as president for next year. New officers elected at the annual meeting were Miss Fern Shipley, vice-president; Mr. David A. Burgoyne, secretary-treasurer; Prof.

Ira N. Hayward, JOURNAL correspondent;
and Dr. Arden Frandsen, marshal.

MARION T. BIRD,
Journal Correspondent

VIRGINIA POLYTECHNIC INSTITUTE

Six students were elected to membership in the V. P. I. chapter of Phi Kappa Phi on May 19, 1944. They were Mr. Daniel Frederick, civil engineering; Miss Jane Hardcastle, aeronautical engineering; Mr. T. E. Hall, mechanical engineering; Mr. A. L. Thornton, mechanical engineering; Mr. J. A. Kolbe, chemistry; and Miss Alma L. Whitman, bacteriology. Miss Whitman is a graduate of Roanoke College and a candidate for the Master of Science degree at V. P. I. All of these newly elected members, with the exception of Mr. Hall, were initiated in June.

On June 23, convocation day for the spring quarter, at 2.15 p.m. in the Faculty Club Room of the War Memorial Building, six alumni were initiated as follows: Mr. J. Thompson Brown '02; Mr. F. Donaldson Brown '02; Mr. J. Ambler Johnston '04; Mr. Charles K. Payne '81; Mr. Robert A. Russell '07; and Mr. W. E. Wine '04. Brig. Gen. Forrest Williford, a charter member of the chapter, spoke a few words of welcome to these initiates.

Officers for the year 1944-45 have been elected. They are president, Jay Hall, assistant professor of English; vice-president, J. P. Mahaney, associate professor of industrial engineering; secretary, Louise Akers, secretary to the dean of the College; treasurer, S. S. Obenshain, associate agronomist; marshal, P. H. McGauhey, professor of sanitary engineering.

LUCY LEE LANCASTER,
Journal Correspondent

UNIVERSITY OF WISCONSIN

Forty-five seniors and two faculty

members at the University of Wisconsin were initiated into Phi Kappa Phi at a banquet held on January 14, 1944. The faculty members are Prof. Charles Bunn of the Law School, who has spent a great part of the last two years on leave with the State Department in Washington, D. C.; and Dr. Erwin Schmidt, chief surgeon at the Wisconsin General Hospital and professor of surgery in the University Medical School. Professor Bunn addressed the group on "After Moscow, What?"

Following is the list of seniors initiated: Donald Ames, Virginia Aske, Merritt Bauman, Barbara Bernstein, Elizabeth Berry, Barbara Blumenfeld, Shirley Borchart, John Buxbaum, John Caldwell, Dorothy Cox, Ethel Dubin, Robert William Eck, Florence Fox, Emily Jane Graham, Eleanor Hatch, Barbara Heebink, Walter Hirschert, Esther Hougen, Walter Huchthausen, Charlotte Irgens, William Jacobson, David M. Kowalke, Emily Jean Larkin.

Roland Liebenow, Elizabeth Luhmen, Mary Lushbough, Shirley Margolius, Marion McCammond, Lester Meinhardt, Myrna Jean Meyer, Donald Niles, Lucille Palmatier, Therese Pick, Mary Jane Purcell, Lucia Rodgers, Caroline Rugee, Kathleen Ryan, Katherine Schindler, John Schuette, Lenore Sipes, Jean Tickler, Lois Ann Spies, Elizabeth Hartley Steinsberger, Esther Strebek, Gordon Svoboda, Georgia Ann Trebilcock, Eve Turchen, Don Watzke, Ruth Welling, May Whittemore, Virginia Worthington, and Mary Jean Zentner.

The officers for the following year are: president, Mr. F. W. Roe, professor of English; vice-president, Mr. Farrington Daniels, professor of chemistry; secretary-treasurer, Miss Ruth Wallerstein, associate professor of English; JOURNAL correspondent, Mrs. Mark G. Troxell, dean of women.

LOUISE TROXELL,
Journal Correspondent.

Personal Items

BUTLER UNIVERSITY

Word has been received of the recent promotion of former professor Clyde Clark to the rank of lieutenant colonel. He is at present attached to the U. S. Embassy in Madrid, Spain. Professor Clark was formerly professor of Spanish. He is on leave from Butler.

Miss Louise Dauner '36, has been granted a \$1500.00 scholarship offered by the American Association of University Women to continue her studies of the poet E. A. Robinson. Miss Dauner is completing her work for her Ph.D. degree this year at the University of Iowa.

Miss Nancy Moore '33, was a contributor and adviser to the *Dictionary of World Literature* published by the Philosophical Library.

ESTHER A. RENFREW

COE COLLEGE

Miss Alta Jeanne Sheetz '41, has recently been awarded a Lydia Roberts fellowship for a second time, for graduate study in the School of Library Science at Columbia University during 1944-1945. On her first award, for the year 1941-1942, she earned her bachelor's degree in library science at Columbia, and during the two ensuing years has been employed in the order department of the State University of Iowa Library. This coming year she will work towards her master's degree.

Miss Dorothy Irene Mueller '44, who was graduated from Coe in March with First Honors and *Summa Cum Laude*, has been granted a Lydia Roberts fellowship for graduate study at Columbia University in 1944-1945. A sociology major at Coe, she will work towards a master's degree in social science. She is the third major in the Division of Social Studies at Coe in two years who has won a Roberts fellowship.

Miss Esther Cunningham '43, recently received her Master of Science degree in marketing research at Columbia University, where she has been studying this past year on a Lydia Roberts fellowship. Early in June her engagement and approaching marriage was announced to Lieut. Perry D. Woodward '44, also a member of Coe chapter of Phi Kappa Phi. Lieutenant Woodward received his commission at Fort Benning, Ga., on May 23, and is at present stationed at Camp Adair, Ore.

James B. Hodgson, assistant professor of philosophy, has been granted a leave of absence for the year 1944-1945 for further graduate study in the department of philosophy at the University of Chicago. He was awarded a University fellowship which commenced with the summer quarter in June. Professor Hodgson was president of the Coe chapter of Phi Kappa Phi during 1941-1943.

Nine members of the Coe chapter of Phi Kappa Phi represented institutions of higher learning or educational societies at the inauguration of Dr. Russell Cole as the ninth president of Cornell College at Mt. Vernon, Ia., on April 25. The list follows: Dr. C. Harve Geiger, dean of the College and professor of education and psychology, represented Manchester College, Ind.; Dr. C. Ward Macy, professor of economics and chairman of the division of social studies, represented Stanford University; Dr. Karl A. Stiles, professor of biology and chairman of the division of natural sciences, represented Huron College, S.D.; Dr. Ben H. Peterson, professor of chemistry, represented the Iowa Academy of Science; Dr. Irving L. Churchill, professor of English, represented the American Association of University Professors; Dr. Boyd G. Carter, professor of Romance languages, represented the College of William and Mary, Va.; Leroy M. Coffin, professor of mathematics, represented the University of Maine; John M. Henry, professor of commerce and finance, represented Ohio

University, Athens, Ohio; Lynn E. Garwood, professor of social science, represented Otterbein College, Ohio.

Dr. Eric L. Clitheroe, associate professor of Bible, will replace Prof. James B. Hodgson in the philosophy department during 1944-1945 while Professor Hodgson is studying at the University of Chicago.

Robert F. Ray '44, who graduated in March with Second Honors and *Magna Cum Laude*, is an assistant in the speech department at the State University of Iowa, where he is also doing graduate work. At Coe, where Ray was a speech major, he was head of both the Coe College and Linn County Speakers' Bureaus under the Office of Civilian Defense, and a member of Pi Kappa Delta, national forensic honor society, as well as president of the Student Council. Last summer he made a conducted tour of Mexico and studied at the University of Mexico, by virtue of being one of six regional winners of a nation-wide student discussion contest on inter-American affairs.

Dr. C. Ward Macy, professor of economics and chairman of the Division of Social Studies, is author of an article entitled "The Corporation Net Income Tax and the Cost-Price Structure," which appeared in the May *Bulletin of the National Tax Association*. A second article, "Economics in the Liberal Arts Curriculum," was published in the May *Bulletin of the Association of American Colleges*.

Dr. George W. Bryant, professor emeritus of Latin, in June resigned his position as secretary-treasurer of the Midwest Athletic Conference following a twenty-four-year tenure during which he did not miss a meeting. His absence from the annual meeting in June was the first since the founding of the conference, of which he was a prime mover. Dr. C. Ward Macy, who was deputy secretary-treasurer until the office was abolished in June, was named to the newly created office of commissioner, to act as interpreter of conference rules.

Maj. Mary Bell of the Women's Army Corps, dean of women at Coe until her resignation in 1942 to enter the army, in April was appointed the first woman in-

structor at the Command and General Staff School at Fort Leavenworth, Kan. Prior to her new appointment she was director of all WAC's in the Seventh Service Command, and the only woman among the nineteen officers on the general staff at Seventh Service Command Headquarters in Omaha, Neb.

At the 57th annual meeting of the Iowa Academy of Science, for which Coe College was host, several members of the Coe chapter of Phi Kappa Phi participated. Dr. Karl A. Stiles, professor of zoology and chairman of the Division of Natural Sciences, presided at the section meeting on science teaching and presented a paper on "The Preparation of High-School Science Teachers in Iowa." To the zoology section he presented a paper prepared jointly by himself and Doris Luber '43, on "Studies on Iowa Spiders." Dr. Ben H. Peterson, professor of chemistry, read a paper at the general and physical chemistry section meeting entitled "The System: Tertiary Butyl Alcohol-Acetamide." Dr. Peterson, vice-president of the Academy during 1943-1944, was elected president of the organization for the current year.

"Carnival Graces," a charcoal drawing by Marvin D. Cone, professor of art, was selected for exhibit in the special section on drawing at the 55th annual International Water Color Show, held at the Art Institute in Chicago from June 8 to August 20.

At special vesper services on Sunday, April 23, a stained glass window in Sinclair Memorial Chapel at Coe was dedicated in honor of Dr. William McClung Evans, professor emeritus of Bible at Coe—"one who is still living and will ever live in the heart memories of those who know him and his long life of service to the church, to the College, and to his fellowmen. Doctor Evans was born on January 7, 1856, at South Salem, Ohio, graduated from Wooster College in 1879 and from Allegheny Seminary at Pittsburgh, Pa., in 1882. In the same year he came to Iowa as a home missionary, and after holding various pastorates throughout Iowa became a member of the Coe faculty in 1900. He retired in 1926 after twenty years as head of the department of Bible and seventeen as college registrar. Seven times commissioner of

the Presbyterian General Assembly of the Iowa Synod, he was associate editor in 1932 of "One Hundred Years of the Iowa Presbyterian Church." Today, at eighty-eight years of age, Doctor Evans is still an active member of the Presbyterian ministry.

Dr. William G. Murray '24, was appointed head of the department of economics and sociology at Iowa State College in February. He has been a member of the faculty there since 1925, and acting head of the department since October, 1943. His special field of academic activity is rural credit and farm appraisal, and farm management.

IRVING L. CHURCHILL

CORNELL UNIVERSITY

Dr. John C. Adams, associate professor of English at Cornell and widely known Shakespearean scholar, has been elected president of Hofstra College, Hempstead, L. I. He will begin his duties there September 1.

A Cornell graduate in 1926 and son of a Cornelian, Professor Adams will succeed the late Dr. John P. Calkins who died in 1942.

After leaving Cornell Doctor Adams attended Kings College, Cambridge for two years and passed the following year traveling in Western Europe. He was instructor in English at Syracuse for one year before coming to Cornell in 1930. In 1937 he was appointed assistant professor and in 1943 associate professor in the department of English.

Doctor Adams is the author of a series of articles on the Elizabethan stage and staging and of *The Globe Play House*, published by the Harvard University Press in 1942. He taught classes in Shakespeare and in 16th and 17th century English literature, and for the past five years taught in the Graduate School.

Dr. Howard B. Adelmann, professor of zoology, has been named new chairman of the zoology department. Dr. Adelmann has been a staff member since 1919, when he was appointed an assistant in histology and embryology. In 1921 he was made instructor, in 1925 assistant professor, and in 1937 professor.

His three degrees were conferred by Cornell, the A.B. in 1920, the A.M. in 1922, and the Ph.D. in 1924.

As a National Research Council fellow in biological sciences, in 1927-28, he studied at the Stazione Zoologica in Naples, Italy, and under Hans Spemann at the Zoologisches Institut, Freiburg, Germany. In 1932-34, while he was on leave from Cornell, Doctor Adelmann was assistant professor of anatomy at Columbia University. He planned and supervised the construction and equipment of the research laboratories at the Institute of Ophthalmology of the College of Physicians and Surgeons.

He was awarded a grant by the Rockefeller Foundation in 1939, for a year's study at the Strangeways Research Laboratory at Cambridge, England, but the war prevented his acceptance.

In the last edition of *American Men of Science* Dr. Adelmann is starred for his distinction in the field of zoology.

His publications include numerous articles in scientific journals. For *The Embryological Treatises of Hieronymus Fabricius*, published in 1942, Doctor Adelmann received the F. S. Crofts Award for the most distinguished work by a Cornell graduate or staff member accepted by the Cornell Press for that year.

Prof. Calvin D. Albert retires July 1 after forty years of service. Professor Albert joined the staff of the Sibley School of Mechanical Engineering in 1904 as instructor in machine design. He was promoted to the rank of assistant professor in 1908, and to his present rank in 1916. He has been professor in charge of the department of machine design since 1919. He is a native of Whitehaven, Pa., and received the M.E. degree from Cornell in 1902.

He is the author of *Machine Design Drawing Room Problems* and co-author of *Kinematics of Machinery*.

During the first World War (from June, 1917, to July, 1919) he was with the U. S. Shipping Board, Emergency Fleet Corporation, Middle Atlantic District, Baltimore, Md., as chief inspector, senior engineer, and executive assistant in charge of the Technical Department of steel ship construction.

Speakers at the 86th birthday anniversary of Dr. Liberty Hyde Bailey, retired dean of the College of Agriculture and celebrated botanist, on March 15, in Martha Van Rensselaer Hall Green Room, were Prof. H. H. Whetzel, former

student of Doctor Bailey, toastmaster, Dr. Cornelius Betten, dean of the University faculty, and Dr. G. H. Sabine, vice-president of the University.

Doctor Bailey, who retired as dean in 1931, is an authority on the taxonomy of cultivated plants, and is recognized as the most outstanding horticultural teacher and writer of the era. Since his retirement, he has devoted himself to his botanical investigations, which have taken him into remote sections of countries around the world. Last summer he made a trip into the interior of Mexico in search of a new species of palm. He is considered the world's best authority on palms, and has an extensive collection in the Bailey Hortorium, which he founded and gave to the University.

Prof. Fred A. Barnes, professor of railroad engineering, retired July 1 after forty-two years of service. Professor Barnes joined the Cornell staff in 1902 as instructor in civil engineering. In 1905 he was made assistant professor of railroad engineering, and in 1915, professor. He was director of the School of Civil Engineering from 1921 to 1930.

He is a native of Stockbridge, Mass., and attended the public schools there. He received the C.E. degree from Cornell in 1897, and the M.C.E. in 1898.

He was with the district engineers' office, Washington, D. C., in 1898; draftsman, U. S. Navy, Santiago de Cuba, in 1899; assistant and resident engineer, Department of Santiago, 1899-1901.

Dean S. C. Hollister of the College of Engineering was among the several members of the College of Engineering faculty who attended the 52nd annual meeting of the Society for the Promotion of Engineering Education in Cincinnati. Dean Hollister contributed in the discussion of the subject of "Sustaining Faculty Organization." Prof. J. N. Goodier discussed the teaching of mathematics to engineers. Prof. W. L. Malcolm also attended the convention.

Dr. Edmund E. Day, president of Cornell University, delivered the Commencement address at Simmons College on June 12. His topic was "Postwar Orientation of American Higher Education."

President Day of Cornell University

has been appointed on a committee of nineteen educators and specialists named by the Advisory Council on Medical Education to make a nationwide study of post-war medical education.

Regarded as one of the important problems of the post-war period is that of providing educational opportunities for medical officers when they are discharged from military services. Two groups of officers will need educational assistance: Those whose normal program of medical education and hospital training has been abbreviated or interrupted by the war, and those called from active practice who will need intensive short refresher courses to prepare them for the return to civilian life.

Another problem is the re-establishment as promptly as possible of a level of premedical college preparation required by modern medical instruction. The present preparation of fifteen months, prescribed by the Army Specialized Training Program, is held by the Council to be insufficient.

President Day has accepted membership on the "Commission on Motion Pictures in Education," set up by the film industry in cooperation with the American Council on Education.

The industry has appropriated funds to finance a five-year program to study more fully the role of educational films which were stressed as of growing importance in the annual report of Will H. Hays, president of the Motion Picture Producers and Distributors of America.

Dr. Theodore H. Eaton, professor of rural education, retired July 1 after thirty-two years of service. Professor Eaton first came to Cornell for graduate work and as instructor in agriculture in 1912-13. From 1913-20 he was instructor in agricultural education at Central State Teachers College, Mt. Pleasant, Mich.; instructor in education at Columbia University; professor of education and dean of teacher training, Connecticut Agricultural College. He returned to Cornell as professor of rural education in 1920.

His A.B. degree was conferred by Harvard in 1900, and his A.M. and Ph.D. degrees by Columbia in 1915 and 1917.

More than sixty of his articles in the field of education have been published. He has written the following books: *Agricultural Education* (1916), *Vocational Education in Agricultural Occupations* (1923), *Education and Vocations* (1926).

College Teaching (1932), and *An Approach to the Philosophy of Education* (1938).

Miss Katherine Harris, professor of home economics, sent a paper to the American Home Economics Association on "Reports of Recent Institutional Management Research."

Miss Elaine Knowles, instructor in home economics, spoke on "Motion and Time Study Applied to Household Tasks" at the American Home Economics Association meetings. Miss Knowles is also a member of the committee of the association on home management and will participate in the committee meetings.

A Liberty Ship has been named for Carl E. Ladd, late dean of the College of Agriculture at Cornell.

Word was received from the U. S. Maritime Commission in Washington that the ship is under construction at the J. A. Jones Construction Co., Inc. of Panama City, Fla.

Doctor Ladd is the fourth Cornellian to have a Liberty ship named for him. The others are Ezra Cornell, Andrew D. White, and Ross Marvin.

Drs. F. F. Hill and F. A. Harper, of the department of agricultural economics, in *Have We Enough Food for All?* express the belief that if the American people will eat less meat for a while, we can take care of our own food requirements and our share of the war and post-war needs of the world. The change in diet need not, the authors assert, deprive any American of adequate nourishment. They believe that the United States can help feed the world's 200,000,000 to 350,000,000 "hungry" if we eat more dry beans and potatoes. The authors recommend a shift of acreage devoted to livestock feed crops, to human food crops. This book was published in March by the Public Affairs Committee, Inc.

Dean S. C. Hollister of the College of Engineering, representing Cornell University, attended a dinner honoring Samuel F. B. Morse Wednesday, May 24, at the Statler Hotel, Washington, D. C. Sponsored by the telegraph industry and the Association of American Railroads,

the celebration marked the centennial observance of the first practical application of the telegraph.

The new book on *Experimental Methods in Agricultural Research* completed in 1943 by Prof. H. H. Love of the College of Agriculture at Cornell, has just been translated into Spanish, and is now available in both English and Spanish editions.

The 229-page book was published by the agricultural experiment station of the University of Puerto Rico.

Doctor Love, acting head of the plant breeding department at Cornell, has written other books on statistical methods applied to agricultural research. In the new book he describes the essentials of handling experimental data and the methods of organizing scientific field tests of crop plants. Each chapter includes examples of actual work done with field tests of plants and with the statistics on them. The book is designed both for beginners and for agricultural workers who have done some research work with field plots.

Dr. L. A. Maynard, director of the School of Nutrition, was granted a six-weeks' leave from Cornell University, to permit him to work in London with experts of the United Kingdom and the United Nations Relief and Rehabilitation Administration, on food requirements for European countries.

Doctor Maynard has been granted leave for the same period by the director of the Agricultural Research Administration, Washington, from his duties at the Federal Nutrition Laboratory at Cornell.

President Day and the board of trustees responded to a request from the Foreign Economic Administration for Doctor Maynard's services. The request cited a cable from Ambassador John G. Winant asking that Doctor Maynard be a member of a small party of nutrition specialists to work on food needs and problems of European countries.

The present project is closely related to the study of international food consumption to which Doctor Maynard contributed so effectively last year, the Washington telegram said. Work will start soon.

Doctor Maynard was one of the twenty-five scientists recently elected to membership by the National Academy of

Sciences at its annual meeting in Washington. Dr. J. G. Kirkwood, Todd professor of chemistry, and three Cornell professors *emeriti*. L. H. Bailey, agriculture; R. A. Emerson, plant breeding; and Ernest Merritt, physics, are other Cornell Phi Kappa Phi members who are also members of the National Academy of Sciences.

Dean William I. Myers of the College of Agriculture has been named one of three members of a committee for long-range planning to prevent "chaotic food conditions" in New York State after the



DEAN W. I. MYERS

war. The committee was appointed by Harold M. Stanley, Skaneateles, chairman of the State Emergency Food Commission, at the suggestion of Governor Dewey. Dr. L. A. Maynard, director of the School of Nutrition at Cornell, and State Agricultural Commissioner C. Chester Du Mond, are the other two members.

Doctor Myers, chairman, explained that "the ultimate aims of the committee will be to help provide a good market for the farmer, and by giving the consumer the food he wants when he wants it and in the form he wants it, raise the nutritional standards of all the people both on farms and in cities.

All three members of the new group are members of the State Emergency Food Commission.

Dr. Clyde H. Myers, professor of plant breeding retired March 7 after thirty-three years of service. Professor Myers was born at Randolph, Ill., and received his Bachelor of Science degree from Illinois Wesleyan University in 1907; his Master of Science degree from the University of Illinois in 1910, and his Doctor of Philosophy degree from Cornell in 1912.

Between 1907 and 1910 he was assistant in plant breeding at the University of Illinois. He came to Cornell as instructor in plant breeding in 1911; was an assistant professor in 1912 and 1913, and was promoted to professor during the latter year.

A new directory of the thirty-six scientists who received the Borden Awards from 1937 to 1943 lists five men associated with Cornell University as present or past faculty members or as graduates. Among them is Dr. Leo C. Norris, professor of nutrition and secretary of the School of Nutrition, who received his bachelor and graduate degrees from Cornell and has been on the faculty since 1920.

Dr. Loren C. Petry of the department of botany, has been appointed as director of education for former service personnel to assist service men who will undertake or resume college training after discharge from the armed forces.

Doctor Petry resigned today as director of basic courses in the Army Specialized Training Program to concentrate his efforts on education for veterans of the armed forces. He has been director of the summer session at Cornell since 1934 and will resign this position on September 30.

Requirements and duties of his added new position will be worked out more fully as the former service men start returning to college in increasing numbers, but in general Doctor Petry will look after their interests, become acquainted with their needs, expedite matters for them with the University, and serve as the co-ordinator with the Veterans' Administration in Washington.

Dr. Marion C. Pfund, professor of home economics and president of Cornell chapter

of Phi Kappa Phi, attended the annual meeting of the American Home Economics Association in Chicago. Professor Pfund presided at the session of the research planning division, at the joint preliminary session of the research round tables, and the meeting of the research department steering committee.

A large painting of West Hill, called "Roads to Ithaca," by Kenneth Washburn of the department of painting and sculpture at Cornell University, was included in the 118th Annual Exhibition of the National Academy of Design in New York City. The Exhibition, in the new Academy building at 90th Street and Fifth Avenue, ended April 25. The painting is of a thawing, sunny day in March, with the ground still covered with snow. It is 3½ by 4½ feet.

Mr. Washburn attended the National Academy's formal preview and reception at the show's beginning, the evening of March 21. In the American Water Color Society's annual exhibition which preceded this in the same galleries, he exhibited two large water colors, "Milltown" and "Knapp's Grill," both western New York subjects. Mr. Washburn was elected a member of the society last year when his "Portrait Of My Parents" was exhibited there. Sculpture by Mr. Washburn has been exhibited in the Texas Centennial, the New York World's Fair, and elsewhere.

Professor Washburn studied at Cornell, and was the first person to enroll in the Art course when it was started, in 1922. Now instructing in creative work in painting and sculpture, he has devoted most of his work to painting the aspect of American life in central and western New York with which he is most familiar. "This aspect," said he, "may be found in the villages from Maine to California, an aspect of rich deep living, of independence and self-reliance." It is Mr. Washburn's hope that art may reach all people, no longer as a luxury, but available to all.

BERTHA E. BEASLEY.

IOWA STATE COLLEGE

Dr. P. Mabel Nelson, head of the department of foods and nutrition at Iowa State College, has been appointed dean of the Division of Home Economics. Doctor Nelson will succeed Miss Genevieve Fisher, who retires from the deanship on September 1.

Doctor Nelson came to Iowa State College in the fall of 1923 and became head of the foods and nutrition department in 1926. She has served on the college committee on graduate study since 1926 and is head of the foods and nutrition subsection of the home economics section of the Iowa Agricultural Experiment Station. She is also chairman of the State Nutrition Council for Iowa and of the North Central States cooperative project, "Nutritional Status of College Women."

Doctor Nelson graduated in nutrition from the University of California in 1914 and received her M.S. degree from the same institution two years later. She received the degree of Doctor of Philosophy in physiological chemistry from Yale University in 1923, where she held a graduate assistantship.

Her teaching career was begun in the California public schools, and she later served on the staff of the State Normal School at Santa Barbara, Cal.

MARTIN F. FRITZ

MASSACHUSETTS STATE COLLEGE

Dr. C. P. Alexander, head of the department of entomology, was elected president of the Massachusetts State College chapter of the Society of the Sigma Xi at the spring business meeting. Dr. Frank A. Hays, research professor of poultry husbandry, was elected vice-president; and Mr. John G. Archibald, research professor of animal husbandry, was reelected treasurer.

Prof. Lyle E. Blundell, professor of horticulture, and Dr. R. W. Fessenden, assistant professor of inorganic chemistry, were elected by the faculty to the cabinet of the College.

Prof. Victor A. Rice, head of the Division of Agriculture, has been appointed by Governor Saltonstall to a state subcommittee on agricultural industry.

Dr. Maxwell H. Goldberg, assistant professor of English, served as a judge in the editorial and cartoon contest sponsored by the War Finance Division of the Treasury Department held in cooperation with the magazine *This Week* and the Columbia Scholastic Press Association.

Miss Charlotte S. Eigner was named Phi Beta Kappa Scholar by the Massa-

chusetts State College Phi Beta Kappa Club, and received the scholarship award.

Miss Charlotte Eigner and Miss Charlotte Kaizer received the Bachelor of Arts degree, *Magna Cum Laude*, at the mid-winter Commencement. Miss Ruth Rosoff received the Bachelor of Science degree, *Cum Laude*.

At the Commencement exercises in May, Stanley T. Kisiel and Victor A. Leonowicz were graduated *Magna Cum Laude* with the Bachelor of Science degree. Miss Jane V. Moriarty received the Bachelor of Arts degree, *Magna Cum Laude*. *Cum Laude* graduates were: Bachelor of Arts, Miss Barbara E. Baird; Bachelor of Science, Armand L. Bengle, Jr.; Miss Jean A. Burgess, Seymour Gold, and Miss Dorothy E. Peck.

Stanley T. Kisiel received departmental honors in entomology at the May Commencement.

Miss Jean Burgess was among those senior students chosen to be included in *Who's Who Among American Colleges and Universities*.

MARION E. SMITH

UNIVERSITY OF MICHIGAN

Gertrude Frey '41, last JOURNAL correspondent of the University of Michigan chapter and now absent on leave from her position as secretary to the dean of the College of Literature, Science, and the Arts, is a second lieutenant in the Marine Corps at the Marine Corps Air Station, Paris Island, S. C.

On December 27, 1943, friends who returned to the United States on the *Gripsholm* reported to Mrs. Mary Swinton Madison, of Birmingham, Mich., that Prof. and Mrs. Roy S. Swinton and Barbara Swinton—her parents and sister—were still together, and safe and in good health, in the Santo Tomás Internment Camp in Manila. Professor Swinton, long actively engaged in building up the Michigan chapter of Phi Kappa Phi, was caught by the Japanese invasion while teaching at the University of the Philippines on an exchange professorship.

Ruth Duhme '34, is now an assistant editor of the *Ladies' Home Journal*. A very interesting account of her post-college career is given in the special alumnae issue of the *Michigan Alumnus*, March 18, 1944.

The acceptance of the autobiography of Dean Emeritus Mortimer E. Cooley for publication by the University of Michigan Press was announced on Dean Cooley's eighty-ninth birthday, March 28. The manuscript, entitled "The Scientific Blacksmith," was prepared with the collaboration of Mrs. Vivien Bulloch Keatley '32, Dean Cooley's thrilling experiences in the Navy, told with verve and laughter, are of more than usual interest just now. Head of the College of Engineering for a great many years, Dean Cooley was one of the most masterly and colorful figures on the campus. Throughout his career he has stoutly maintained that at college the professional man should not only receive an excellent technical training, but also be so thoroughly awakened to the cultural heritage of mankind that he would continue to grow in understanding and sympathy all his life and always be a benefit to the community of which he should become a member. There have been times when such a view could be maintained only with difficulty by the head of a professional school. A chapter of anecdotes about campus personages was printed in advance in the spring issue of the *Michigan Alumnus Quarterly Review*, and another chapter, which deals with Dean Cooley's experiences in the Spanish-American War, will appear in the summer *Quarterly*.

Dr. Carl E. Guthe, professor of anthropology and director of the University of Michigan Museums and of the Museum of Anthropology, left Ann Arbor in February, 1944, to take up his duties as director of the New York State Museum, State Education Department, Albany, N. Y.

In the summer of 1943 Dr. Mary C. Van Tuyl and her husband, Frank F. Van Tuyl, took up their residence in San Francisco, where Mr. Van Tuyl was engaged as a consulting engineer. Dr. Van Tuyl withdrew at that time from her active service in the Michigan chapter of the society and in the department of psychology of the University. This year

she undertook certain duties under the extension division of the University of California.

Friends here were grieved to hear of the death of Mr. Van Tuyl on January 5, 1944. Mrs. Van Tuyl has remained in the West. She has a new position as psychologist with the separate Women's Court of San Francisco, the only court of its kind in the United States.

In her recent discussion of Michigan women and the democratic way of life, published in the *Michigan Alumnus*, Dean Alice Lloyd warned women that their increased acceptance in industry and in the professions would decline sharply after the war. She believes that the experience women are acquiring will not be wasted, however, for growth in their sense of community responsibility is commensurate with their professional growth, and in post-war communities perplexed by sudden and pressing social problems, good judgment and a sense of public duty will be indispensable. She urged Michigan women to shoulder their responsibilities as citizens. Not only must they help reestablish the home, inevitably upset by the war, as a stable community influence; they must concern themselves with the rights and problems of minority groups, with the needs of "millions of children who are ill fed, ill housed, and ill clothed, and finally with our American responsibility for international citizenship."

HELEN I. TRAVIS

NORTH DAKOTA AGRICULTURAL COLLEGE

Dr. L. L. Carrick, dean of the School of Chemical Technology, and on the College staff since 1920, resigned in October, 1943. He is now with the Lead Industries Institute in New York City.

O. A. STEVENS

PENNSYLVANIA STATE COLLEGE

Ernest W. Callenbach recently was appointed head of the poultry husbandry department at the College. He is a native of New York, was graduated from the University of Wisconsin in 1924, took graduate work at Rutgers University, and earned the Master of Science degree from the College in 1930. He has been associated with the poultry husbandry department since 1925.

Professor Callenbach had served as acting head of the department on two occasions when the regular head was on leave. He has attained high professional recognition. He is the author or co-author of many scientific papers, bulletins, and circulars. He is a member of many fraternities and societies, including Alpha Gamma Rho, national agricultural social, in which he has been active as an officer and student counselor, and Phi Kappa Phi, which he has served as chapter secretary and executive committee member.

Dr. William S. Dye, Jr., head of the department of English literature at the College, has retired after more than thirty-five years of making Shakespeare popular with students.

Doctor Dye cured student aversion to the traditionally "dry" subject of Shakespearean literature by making a "real guy" of the Bard of Avon and by drawing present-day parallels of his plots and expressions.

He was born in Philadelphia, was graduated from Central High School, and attended Dickinson College. He obtained his bachelor's degree from the University of Pennsylvania in 1905, his master's degree from the College in 1908, and his doctor's degree from the University of Pennsylvania in 1915.

Doctor Dye is a member of the Modern Language Association of America, the Pennsylvania Historical Society, the English Association (of London, England), the Shakespeare Association, Phi Kappa Phi, which he had served as chapter president, and Acacia fraternity, of which he was national president from 1922 to 1929.

He is the author of three books, *Father Penn* (pageant), *Melodrama in England*, and a textbook, *Expository Writing*, and has written numerous magazine articles.

But he refuses to devote his retirement to writing another book because "there are enough people writing with so little to say." Instead, he will turn to painting, a hobby acquired several years ago when Mrs. Dye gave him a set of oils for Father's Day. "I've a closet full of bad ones," he says, "and one or two that are good."

Another Phi Kappa Phi member who retired June 30 is Dr. William R. Ham, head of the College physics department.

As a young physicist of thirty, with a

bachelor's degree from Bates College and a doctorate from the University of Chicago, he came to State College in 1909 because, as he has since explained it, "modern improvements in the village and on the campus provided the comforts of city life without its tendency to extravagant habits and demoralizing influences."

When he first came to Penn State, he found a physics department which lacked the most essential equipment and claimed only two professors, three instructors, and one student major. The department today possesses the most modern equipment, twenty full-time staff members, eighteen graduate assistants, and a normal student enrollment of thirty undergraduate majors.

In the thirty-five years that he was promoting the growth and advancement of the department of physics, Doctor Ham was absent from the campus two years to serve as captain in the Army Ordnance department during World War I, later advancing to the rank of lieutenant-colonel.

Doctor Ham is married and has three children—John, Frank, and Nelson. He is a member of Phi Kappa Phi, Phi Beta Kappa, Sigma Xi, Alpha Tau Omega, the American Physics Society, and the American Society for the Promotion of Engineering Education.

Although he has retired from active teaching, he insists that he will continue study and research. His principal interest is ballistics and he hopes to perfect the gun to which he has devoted many hours since Pearl Harbor. He also will conduct experimental work on the diffusion of gases through metals at his home in Lewiston, Me.

Another long-time member of the College who recently retired is Thomas E. Gravatt, professor of mathematics. He was graduated with a Bachelor of Science degree from Rutgers University in 1897 and later earned the Master of Science degree from the same institution. His organization memberships include Phi Kappa Phi and Phi Beta Kappa. He is secretary of the Mt. Nittany Building and Loan Association of State College. He is married and the father of four children.

Dr. Henry S. Brunner, Phi Kappa Phi and head of the department of agricultural education at the College, is chairman

of the board of directors of the Penn State Christian Association.

Phi Kappa Phi J. Martin Fry, director of agricultural extension, is head of the Emergency Farm Labor program for Pennsylvania.

He has recently been elected chairman of the northeastern section of Agricultural Extension Directors. He succeeds W. G. Woodward of Connecticut, who lost his life in the Hartford circus fire.

Patricia Diener, a recent initiate into Phi Kappa Phi, served during the past year as president of the Women's Self-Government Association. She also was honored by being selected to study at the Merrill-Palmer Institute in Detroit.

Edward A. Kachik, winner of the Phi Kappa Phi scholarship award from the chapter in 1942 and an initiate that year, was married on June 3 to Miss Jean Caum, daughter of Mr. and Mrs. Jesse H. Caum of Bellefonte, Pa. Since his graduation, Mr. Kachik has been employed as an electrical metallurgist by the Dupont Company of Wilmington, Del.

Miles Horst, Phi Kappa Phi member who is secretary of the Pennsylvania Department of Agriculture, recently spoke to students and faculty of the School of Agriculture of the College, on "Wartime Problems of Pennsylvania Agriculture." Horst was graduated from the College with honors in 1914. He served as president of the Penn State Alumni Association for five years and is now a member of the College Board of Trustees.

Among recent promotions are those of Phi Kappa Phi members, Dr. A. C. Richer, from assistant professor to associate professor of soil technology, and Dr. Fred V. Grau, from assistant professor to associate professor of agronomy extension.

Dr. Dean R. Marble, Phi Kappa Phi graduate of Cornell University, has resigned as professor of poultry husbandry at the College to accept appointment as geneticist for Creighton Farms, one of the largest poultry establishments in the United States, located near Warsaw, Ind.

NECROLOGY

IN GRATEFUL
ACKNOWLEDGMENT
OF THE FAITHFUL SERV-
ICE RENDERED AND THE
FINE IDEALISM WHICH IN-
SPIRED IT, PHI KAPPA PHI
DEDICATES THE FOLLO-
WING PAGES TO THE MEM-
ORY OF THOSE MEMBERS
WHO HAVE BORNE ITS
PRINCIPLES INTO THE
GREAT BEYOND

RIP

CORA B. MILLER

The passing of Cora B. Miller on February 24, 1944, brought many tributes from her former students and associates which bear witness to the simple truth that unselfed human service lives on.

One tribute came from a former graduate student who wrote of her as both teacher and leader in her field: "Her philosophy of education and the inspiration of her teaching have become a part of many colleges and schools throughout the country, with countless numbers of her students and friends striving to impart to others what she had brought to them."

Miss Miller's place as a teacher far transcended any classroom concept of teaching. Her students knew her as a very human and understanding counsellor and friend. She saw them as individuals and through her genuine concern for human need and her profound respect for individuality, she held their confidence and regard.

One of her major contributions to Iowa State College is seen each fall in the large numbers of young women coming to enroll. It would appear that few people have been so effective in recruiting students of home economics in this institution. The explanation is simple. Her vision of home economics was not as a group of subjects, but as a unified and complete program for better home living.

A few days after her death, a former co-worker writing of Miss Miller's modesty and her lack of personal ambition, went on to say: "Yet it was she who chose the personnel and who laid plans for the departmental program which has attracted graduate students from many states and a program which has held first place all these years."

In the state she served as chairman of the first committee to prepare a state course of study in home economics. This medium gave her ideas another opportunity to effect major changes in the quality of homemaking education in the nine hundred high schools of the state.

Nationally Miss Miller has been known through her professional writings and as one of the editors of the *Home Economics News* from 1930 through 1932. Many leaders in home economics education were trained under her direction and turned to her for guidance. As witness of this confidence she was invited

to Puerto Rico to conduct a series of conferences on teaching problems in 1936.

Cora B. Miller was perhaps best known, loved, and respected by her own staff. Asking no personal recognition for herself, with generosity and complete sincerity she gave to them encouragement, appreciation, and friendly guidance.

As a faculty we wish to express our sorrow at her passing, also to see this testimony become a part of our minutes, and to extend to her family our sincere sympathy.

MARTIN FRITZ

WALTER HULLIHEN

Dr. Walter Hullihen, aged 68, president of the University of Delaware since 1920, died on April 14 in the Delaware Hospital, Wilmington. He had been in the hospital for several weeks and had undergone an operation a week before his death.

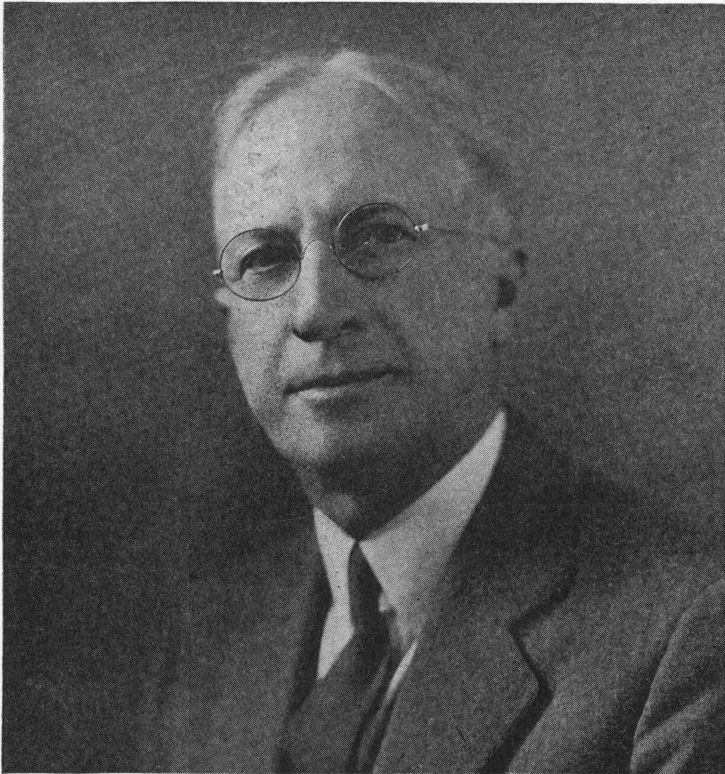
Born on May 26, 1875, in Staunton, Va., Doctor Hullihen was the son of the late Rev. Walter Quarrier Hullihen, rector of Trinity Episcopal Church, and of Mrs. Amelia Hay Campbell Hullihen. His father was a captain in the Confederate Army during the Civil War and served on the staff of General J. E. B. Stuart. After receiving his early education at the Staunton Military Academy, Doctor Hullihen matriculated at the University of Virginia, where he received the degrees of A.B. and A.M. After graduation from Virginia in 1896, he became licentiate instructor in Latin, German, and mathematics at that University. In 1897 he began graduate work at Johns Hopkins University, which he completed in 1900, when he was awarded the degree of Ph.D. From 1899 to 1900 he was a University Fellow at Johns Hopkins, and from 1900 to 1902, he was a Fellow by Courtesy. From 1902 to 1904 he was instructor and an executive in the Marston University School, Baltimore. He was professor of Latin and Greek at the University of Chattanooga, Tenn., from 1904 to 1909, spending two years of this period, 1907-08, in studying at Leipzig, Munich, and Rome. In 1909 he was appointed professor of Greek at the University of the South, Sewanee, Tenn., and from 1912 to 1920, he served as dean of the College of Arts and Science at that institution.

At the outbreak of the first World War, Doctor Hullihen entered the officers training camp at Fort Oglethorpe, Ga.,

where he was commissioned a captain of infantry. He was later adjutant of the 29th Brigade and assistant chief of operations and training on the general staff of the 15th Division at Camp Logan, Tex. He was discharged in February, 1919, and a month later was commissioned a major of infantry in the Officers Reserve Corps.

For many years he was secretary and treasurer of the Association of Colleges

of Delaware. His term as president was the longest in the College's history. In 1923 Doctor Hullihen was active in establishing the Delaware Foreign Study Plan, under which students spent their junior year abroad in France, Germany, or Switzerland. During his administration the University grew greatly both in number of students and physical plant. Doctor Hullihen aided in the establishment of the retirement pension system for members of



DR. WALTER HULLIHEN

and Secondary Schools of the Southern States and a member of the executive committee of the Classical Association of the Middle West and the South. He also served as president of the Tennessee Philological Association.

On October 30, 1920, he was formally inducted as president of Delaware College, which was united with the Women's College in the next year as the Univer-

sity of Delaware. He was active in attempting to secure legislation to curb the granting of bogus college diplomas by corporations chartered in Delaware.

He was a member of Delta Phi, Phi Beta Kappa, and Phi Kappa Phi, of the Army and Navy Club of America, New York, the University Club, Wilmington, the Wilmington Country Club, the Wilmington Rotary Club, and the Newark

Country Club. He was a member of the board of directors of Camp Greenbrier, Inc., Alderson, W. Va.; the Biochemical Research Foundation, Newark, Del., and the Columbia Oil, Shale and Refining Co., Denver, Colo. He was a Chevalier of the Legion of Honor of France and had received the honorary degrees of D.C.L. from the University of the South in 1922 and LL.D. from Temple University in 1925.

Surviving him are his wife, the former Maude Louise Winchester; two daughters, Mrs. John A. Woolley and Mrs. Charles O. Walker, both of Wilmington; and four grandchildren. Interment was in the Gracelawn Memorial Park, near Wilmington.

OLIVE M. JONES

GEORGE ELLIOTT DUTTON

George Elliott Dutton, aged 62, dean and registrar of Delaware College, died on February 29 at his home in Newark.

Dean Dutton was born December 11, 1881, at Seaford, the son of James Edwin Dutton, vice-president of the University's Board of Trustees, and the late Mary Elliott Dutton. He was educated in the



DEAN GEORGE E. DUTTON

Seaford public schools, at the University of Delaware, and at the graduate schools of Johns Hopkins University and Harvard University. After gaining his first teaching experience at a preparatory school in North Carolina and at the University of Missouri, he was called to the University of Delaware in 1911 as assistant professor of English. In 1917 he was made associate professor and in 1923 was promoted to a full professorship. In the latter year he was also elected dean and registrar to succeed E. Lawrence Smith '96, who had died. The dean's office at that time was in Purnell Hall in what is now the Alumni Office.

In addition to his administrative duties, Dean Dutton continued to teach one course in English until the present term began. He was chairman of the University committee on pensions and of the scholarship and discipline committee and was a member of the committee on courses and degrees. He was also Delaware member of the Commission on Secondary Schools and Colleges and a member of the National Association of College Registrars, the Modern Language Association, Kappa Alpha (Southern), and Phi Kappa Phi. He was the author of many articles on education and was co-author of "English Composition for Freshmen."

Dean Dutton had been in ill health for many years but continued with his work until January, when he was taken to the Wilmington General Hospital suffering from pneumonia. After about two weeks he seemed to recover and was returned to his home before the occurrence of the final relapse which led to his death.

Surviving him are his father; his wife, the former Miss Elsie Sylvester, of Ridgely, Md.; a son, Lieut. (j.g.) George E. Dutton, Jr., of Lakehurst, N. J., and a brother, J. Edwin Dutton, Jr., of Seaford. Interment was at Seaford.

OLIVE M. JONES

E. PORTER FELT

Dr. E. Porter Felt died at his office at the Bartlett Tree Research Laboratory at Stamford, Conn., on December 14, 1943. He was 75 years old. Doctor Felt was graduated from Massachusetts State College in 1891 and received the Doctor of Science degree from Cornell University in 1894. In 1898 he became state entomologist of New York, and served in that capacity until he was appointed director of the Bartlett Tree Research Laboratory

in 1928. Doctor Felt, internationally famous as an entomologist, is author of many articles, books, and official reports, and a world authority on the gall-midges. He was a fellow of the Entomological Society of America, a member and past president of the American Association of Economic Entomologists, member of the entomological societies of New York and of Washington, and a member of Phi Kappa Phi, Sigma Xi, and Alpha Sigma Phi.

MARION E. SMITH

JAMES LOWELL BARTLETT

James Lowell Bartlett, a graduate of Massachusetts State College in the class of 1897, died at his home in South Sudbury, Mass., on October 25, 1943. He was born in Salisbury, Mass., in 1873. Following his graduation from college, he was weather observer for the U. S. Weather Bureau for several years, a member of the faculty of the University of Wisconsin from 1905 to 1910, and since 1910 has managed a florist business in South Sudbury, Mass. He was a member of Phi Kappa Phi and of Q.T.V. fraternity.

MARION E. SMITH

MAX MONTAGUE NICHOLS, JR.

First Lieut. Max Montague Nichols, Jr., 373 Bomber Squadron (China) was shot down over Burma, December 1, 1943. Lieutenant Nichols was graduated from Clemson College in 1939 having majored in chemistry. While at Clemson he took a very prominent part in student activities and made an excellent scholastic record having received high honors his first two years, honors his third year, being elected to Phi Kappa Phi his senior year. He was a member of Tiger Brotherhood, Alpha Chi Sigma, national chemistry fraternity, and was a cadet officer.

Early in the war young Nichols joined the Army Air Corps as a bombardier. At the time of his death he was serving under General Chennault and had seen action over China, Burma, and India. He was first reported "missing in action" and later, as "killed in action." His mother writes that they have been unable to get any of the details of his death as he was the last member of the original group that went over together.

Lieutenant Nichols has two brothers in the U. S. Army, both of whom are members of Phi Kappa Phi.

CLAUDE B. GREEN

DE WITT JAVAN ROSS

Capt. De Witt Javan Ross was drowned November 8, 1943, during maneuvers near Apalachicola, Fla. At the time of his death, Captain Ross was adjutant of the Eighth Infantry, Fourth Division, Camp Gordon Johnston, Fla.

While at Clemson College Captain Ross was cadet colonel in his senior year, and also a member of Phi Kappa Phi, Blue Key, Scabbard and Blade, and Phi Psi. He was also a member of the Y.M.C.A. Cabinet. He led his class for four years, winning the highest honors scholastically, and the N.A.C.M. Textile Medal in textile engineering.

CLAUDE B. GREEN

DANIEL WILLARD SMITH

Daniel Willard Smith graduated from Clemson College in 1940 with the degree of B.S. in Electrical Engineering. While in college he participated in a varied group of worthwhile student activities including among others, Track, Tiger Brotherhood, A.I.E.E., Tau Beta Pi and Phi Kappa Phi. Upon graduation he entered the Service and was undergoing special communications training at Fort Monmouth when he was killed in a railroad accident.

CLAUDE B. GREEN

EUGENE C. WOODRUFF

Dr. Eugene C. Woodruff, retired professor of radio engineering at the Pennsylvania State College and a nationally known authority in that field, died of a heart attack March 20 in the office of a State College physician where he had gone for a routine examination.

Doctor Woodruff was intensely interested in radio work and served as president of the Amateur Radio League of America. He was known by thousands of young men because of this interest, and impressed his radio engineering classes at the College by his enthusiasm for this field of study.

Doctor Woodruff joined the College faculty in 1913 and taught electrical railway engineering and later radio engineering, until he retired on June 30, 1939.

In the laboratory he equipped at his home for research in the electrical railway and radio fields, he demonstrated particular interest in radio work. His associates said his enthusiasm was contagious and that this avid interest en-

deared him to his co-workers in the Amateur Radio League.

He also was active in other organizations, and maintained membership in the American Institute of Electrical Engineers, the American Electrical Railway Association, the American Association for the Advancement of Science, the American Association of Science and Mathematics Teachers. He also belonged to Phi Kappa Phi, Sigma Xi, and Phi Beta Sigma, and the State College Presbyterian Church.

Before coming to the College in 1913, he held many teaching positions in high schools and colleges of the West. His first teaching jobs were in Michigan and Illinois high schools, after which he went to Montana State College for one year as a professor of chemistry. Thereafter, he spent three years in an Illinois high school and nine years as professor of physics and electrical engineering at James Millikin University.

He obtained his early education at St. Clair, Mich., where he was born April 8, 1871, the son of John S. and Helen Williams Woodruff. He earned his Bachelor of Science degree in 1894 at the University of Michigan, qualifying two years later for the Master of Science degree, and in 1900 for his doctorate.

EDWIN H. ROHRBECK

ELTON DAVID WALKER

Elton David Walker, professor emeritus of civil engineering of The Pennsylvania State College, died early in the morning of February 24, 1944 of a heart attack at his home at 704 McKee Street, State College, Pa. He would have been seventy-five years old on March 8.

Professor Walker retired from active service June 30, 1939 after serving the College almost continuously since 1900. He was absent only to go abroad with the AEF in World War I. He was head of the civil engineering department from 1907 to 1939.

Serving in France as captain with the 15th Engineering Corps, Professor Walker had a notable military career, receiving the decoration of the Purple Heart and a citation from General Pershing for "exceptionally meritorious . . . services with the 15th Engineers at Jonchery and Liffolle-Grand."

He continued his interest in the reserve corps at the close of the war when he was

commissioned a lieutenant colonel. Professor Walker was executive officer of the 354th Engineers. He also served as president of the Centre County chapter of the Reserve Officers Association of the United States and as first vice-president of the Pennsylvania department of that organization.

He was a director of the Engineers Society of Pennsylvania and active in the affairs of the University Club of State College. Professor Walker served as president of the University Club for three and one-half years and was incumbent when the present clubhouse was constructed. He was active in St. Andrew's Episcopal Church and he was a member of its vestry.

He belonged to many professional organizations, was a fellow of the American Public Health Association, a member of the American Society of Civil Engineers, of the American Waterworks Association, of the New England Waterworks Association, of the Society for the Promotion of Engineering Education, the American Association of University Professors, the Society of American Military Engineers, and others.

He held membership in several honorary fraternities including Sigma Xi, Phi Kappa Phi, Tau Beta Pi, Chi Epsilon, and Scabbard and Blade. He was a member of the Delta Kappa Epsilon social fraternity.

Professor Walker was born March 8, 1869, at Taunton, Mass., the son of Benjamin Dudley Walker and Ruth Barrows (Cobb) Walker. He was graduated from Taunton High School, and earned his bachelor's degree in civil engineering at the Massachusetts Institute of Technology.

He was married September 2, 1896 to M. Louise Brownell, and two children (both of them deceased) were born to the union. He was employed by the Factory Mutual Fire Insurance Company at Boston, Mass., before joining the staff of M. I. T. as an assistant in civil engineering.

A series of jobs followed with private firms and the Quartermaster's Department of the U. S. Army at Fort Sheridan, Ill., before he returned to the teaching profession as an instructor in civil engineering at Union College, Schenectady, N. Y. He became resident hydrographer of the U. S. Geological Survey at Union, before coming to the College in 1900 as an assistant professor of civil engineering.

Funeral services were held February 26, at his late home.

Professor Walker is survived by his widow and one brother, Chester E. Walker of Taunton, Mass.

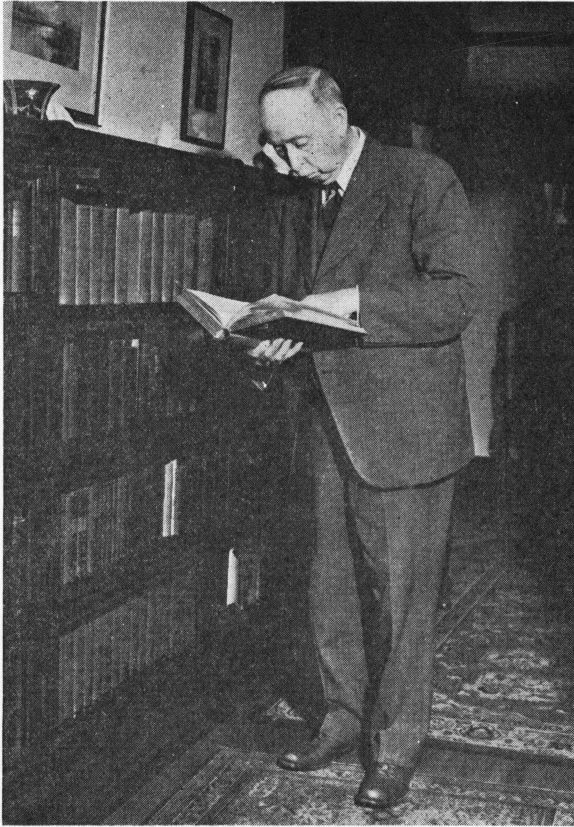
EDWIN H. ROHRBECK

WILBERT FERGUSON

Wesleyan's "Grand Old Man" is dead. On Tuesday, May 9, Dr. Wilbert Ferguson, 87, a member of the Illinois Wesle-

yan University faculty for fifty years and charter member of the Bloomington chapter of Phi Kappa Phi, died. He had been ill for some months at his home and later was taken to a hospital.

for a period, member of an administrative committee when the University was without a president. He offered his resignation for nine consecutive years but the Board of Trustees rejected it each time. When it was finally accepted, he still continued to teach in his home until illness, in December 1943, forced him to cease. His quiet, unassuming manner gained him popular favor with both students and faculty.



WILBERT FERGUSON

yan University faculty for fifty years and charter member of the Bloomington chapter of Phi Kappa Phi, died. He had been ill for some months at his home and later was taken to a hospital.

Doctor Ferguson held many honors at school. He was dean, vice-president, and,

Hundreds of former students wrote letters to his home in Normal each month telling of their activities and expressing thanks that they had had the privilege of knowing him. Doctor Ferguson was proud of these friendships.

In 1942 the Ferguson Foundation was

organized. This consists of a revolving student fund providing loans to needy students.

On December 3, 1940, alumni in seventy-six centers throughout the United States held simultaneous parties observing the ninetieth anniversary of the founding of the school, and at the same time honoring Doctor Ferguson.

He was born January 16, 1857 at Richmond, Ohio, son of William Harrison and Sarah Main Ferguson. Although he received some schooling in this small community, most of his early instruction was received from his father.

He entered Ohio Wesleyan in the fall of 1874 where he was a member of the Phi Gamma Delta national fraternity. Following graduation, he returned to Richmond and married Miss Mary Good-

man. He was engaged in newspaper work, but finally became Greek instructor at Adrian College in Michigan.

Between 1890-1892, accompanied by his wife and his two sons, French and William, he lived in Leipzig, Germany. He returned to Adrian College where he remained until 1894, when he came to Wesleyan.

One daughter, Constance, with whom he made his home, is also a member of this chapter of Phi Kappa Phi and is a French instructor at Wesleyan. Mrs. Ferguson died in 1931.

This Bloomington chapter pays all honor, tribute, and respect to the memory of this fine man; truly a "gentleman of the old school."

VIRGINIA A. HUSTED.

Maintain Your Membership in Phi Kappa Phi!

MEMBERS OF PHI KAPPA PHI not in residence at one of the various chapters may continue active membership by payment of annual dues of One Dollar. This includes subscription to the JOURNAL. Life Members are exempt from payment of National Dues and assessments and receive, for life, the PHI KAPPA PHI JOURNAL.

I enclose One Dollar for Annual dues as a non-resident member of Phi Kappa Phi, for the year 1941-42.

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LAWRENCE R. GUILD, *Secretary,*
Carnegie Institute of Technology,
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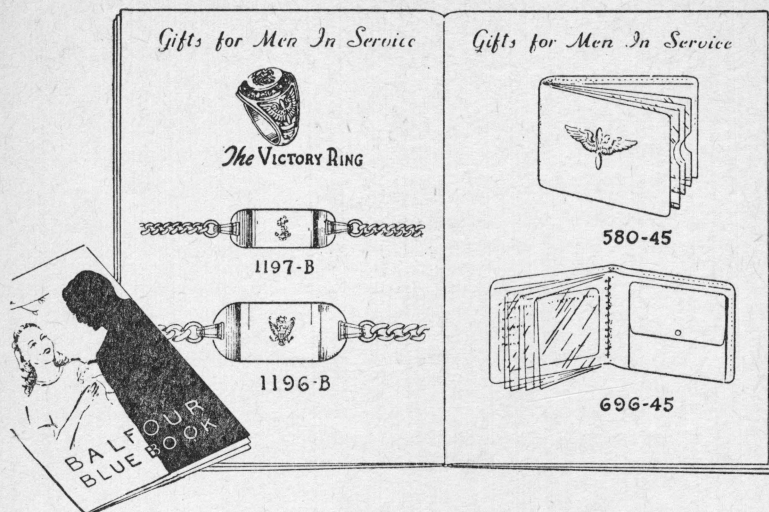
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The Honor Society of Phi Kappa Phi was founded in 1897 and became a national organization through the efforts of the presidents of three state universities. Its primary objective has been from the first the recognition and encouragement of superior scholarship in all fields of university study. Good character is regarded as an essential supporting attribute to those elected to membership. Its chapters elect from all schools of their respective universities, thus providing a coördinating influence.

Supplementing the work, of its chapters, the Society devotes its income to the publication of a quarterly JOURNAL, the annual award of fellowships for first-year graduate study, and the election of funds to endow both publications and fellowships.

The efforts of Phi Kappa Phi are intended to further the fulfillment of its motto—
“The love of learning rules the world.”



The 1945 Edition of the **BALFOUR BLUE BOOK**

The 1945 edition of the Blue Book will be off the presses in the fall, featuring rings, bracelets, keys, lockets, photo frames, billfolds, and gifts for men and women in the Service. . . . Mail post card for **FREE COPY**.

THE VICTORY RING — (shown above) features the service insignia and the fraternity crest.

Prices in BLUE BOOK

IDENTIFICATION BRACELETS can be mounted with branch of service insignia or fraternity crest.

	Sterling Silver	1/8 10K Gold Filled
1197B Narrow	\$4.00*	\$6.00*
1196B Wide	4.75*	8.50*

*Add Federal tax of 20% and State tax where applicable.

Engraving at 5c per letter additional.

Bracelets or billfolds can be shipped air-mail to men overseas. Include full cash with your order and add 40c for packing and postage.

Be sure to mention fraternity or service insignia desired for mounting.

SERVICE BILLFOLDS carry branch of service insignia blind embossed or 3/8" metal crest mounted. No. 580 billfold features stitched-in pass case. No. 696 includes removable pass case, change purse, and secret bill flap.

	No. 580 Billfold	No. 696 Billfold
Embossed Service Insignia	\$3.50*	\$3.75*
Metal crest mounted Embossed Service Insignia and metal crest	3.50*	3.75*
	4.25*	4.50*

*Add Federal tax of 20% and State tax where applicable.

Name gold stamped at 25c additional.

STATIONERY

Attractive styles of stationery in the new lighter weight are available this year.

Write for Samples

Official Jewelers to Phi Kappa Phi

L. G. BALFOUR COMPANY

Factories ATTLEBORO, MASSACHUSETTS

SOCIETY SUPPLIES

I. The following may be had free on application to the Secretary, Dr. L. R. Guild, Carnegie Institute of Technology, Pittsburgh, Pennsylvania.

- (1) Blanks for reporting initiates.
- (2) Blanks for reporting lists of resident and active members.
- (3) Blanks for Secretary's Annual Report.
- (4) Manual of Instruction for Chapter Secretaries (Bulletin No. 2).
- (5) Constitution and By-laws of the Society (Bulletin No. 1).
- (6) Price lists and order blanks for Society emblems. **Chapter Secretaries should keep a supply of all blanks on hand at all times.**

II. The following may be had at the prices named by applying to the Secretary.

- (1) The Phi Kappa Phi Journal, the official organ of the Society. Published quarterly: Single subscription price, per annum, \$1.00; single copies \$0.30.
- (2) Cuts of Society emblems and Seal, as illustrated, each \$0.75.



Key Badge No. 1



Sphere and Rays No. 1



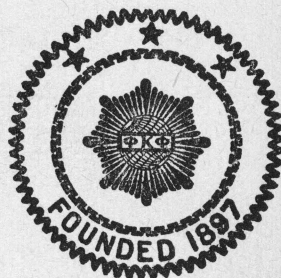
Seal No. 1



Key Badge No. 2



Sphere and Rays No. 2



Seal No. 2

- (3) Society Emblems. Orders filled only on requisition by the Chapter Secretary, to whom application should be made for prices and other blanks.

III. For the following apply to the official jeweler, L. G. Balfour Company, Attleboro, Mass.

Society Stationery. Styles and prices furnished on application.

Narrow Ribbon (to be worn between election and initiation). Per roll of 10 yards, \$2.80.

Wide Ribbon (to be worn at Society functions). Per roll of 10 yards, \$3.50.

Note: Ribbon now obtainable only from L. G. Balfour Company.