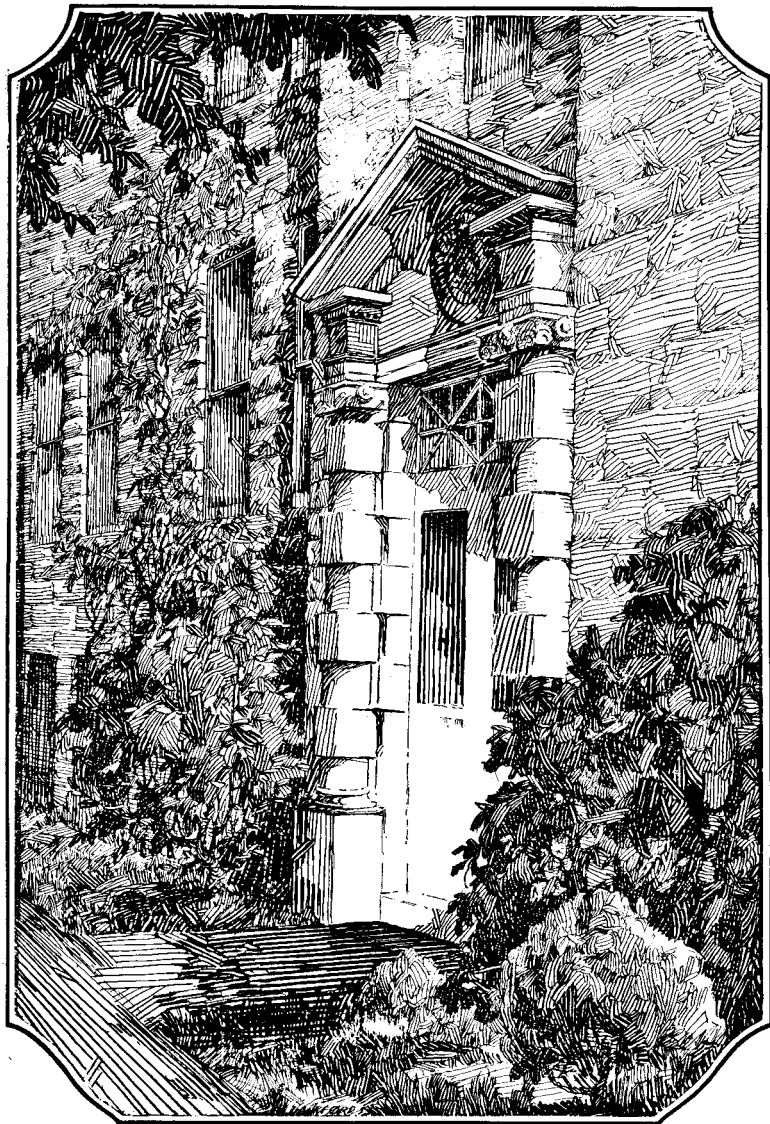


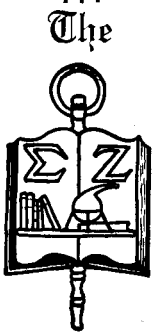
VOLUME 7
NO. 1



SCIENCE HALL

Southeast Missouri State Teachers College

Wherein Fairy Tales of Science are Wrought.



S i g m a
Z e t a n



The Teachers College and Cape Girardeau are, of course, glad of the opportunity to entertain the Annual Conclave of Sigma Zeta. It has been several years since we have had the honor. We welcome the individual representatives of the various Chapters and the Conclave as a group. Cape Girardeau is a pleasant city and the Southeast Missouri State Teachers College is a friendly institution. We predict that you will like both.

May I express the hope that the influence of Sigma Zeta may be extended in various ways and that the Conclave to be held in Cape Girardeau may be instrumental in this extension. The Alpha Chapter of your organization was formed, I believe, a little more than a decade ago. This is not a long time in the history of organizations and institutions. There is, it occurs to me, a genuine need for an undergraduate science society such as Sigma Zeta. It is commonplace to say that we live in an age of science. The physical and the biological sciences are gradually lessening the zone of the unknown. Though they may never be able to explore the entire area, the quest is challenging to the young scientist and interesting to the layman.

The Teachers College wishes Sigma Zeta and The Zetan continued success. Anticipating the pleasure of having your Conclave on our campus, I am

Cordially yours,

W. W. PARKER,
President

THE SIGMA ZETAN

Published bi-annually in the interest of Sigma Zeta, National Honorary Science Society.

GRAND OFFICERS, 1935-36

- Grand Master Scientist—E. E. List (Alpha), Professor of Biology and Geology, Shurtleff College, Alton, Ill.
 Vice Grand Scientist—Homer R. Bolen (Eta), Professor of Biology, State Teachers College, Cape Girardeau, Mo.
 Grand Recorder-Treasurer—T. A. Rogers (Zeta), Professor of Chemistry, Central Teachers College, Stevens Point, Wis.
 Grand Historian—S. M. McClure (Zeta), 610 S. Busey St., Urbana, Ill.
 Grand Editor—Marvin C. Meyer (Eta), Principal, High School, Oran, Mo.

EDITORIAL

The annual Sigma Zeta Conclave to which Eta Chapter is host is to be an important one. There will assemble an imposing array of students and faculty members deeply interested and versed in the fundamental needs of pure and applied science. It will add up to be a keen analysis of needs and possibilities of accomplishments and ambition.

In preparing for the Conclave the members of Eta Chapter, both faculty and students, and the college president, have all worked cooperatively to do everything within their means to help make the meeting a successful one.

Again, having been chosen Grand Editor, I am confronted with the perennial search for delineating thoughts to synthesize into an editorial. It means that I must gallop furiously up and down my thesaurus, seeking desperately a graphical adjective, an exotic noun, a recondite verb, an alien adverb, and after having found them, at last they are de-rooted and transplanted into sentences which, when properly arranged, make a paragraph—a unit of the editorial.

Perhaps before saying anything further about Sigma Zeta, it would be advisable to review briefly the purposes of college of which Sigma Zeta is a part.

College offers a student many privileges which should make those years the best four of his life. It offers above all things a standard that one should achieve in order to do his work better and to understand and appreciate thoroughly the work done by his fellowmen. It grants the privilege of making a limitless number of friends who are to be the future leaders in all occupations, and teaches one to cooperate with others interested in his own particular field. College life is the ideal life for one to learn to orientate himself so that he may be at home, anywhere, at any time.

Through college one may increase his chances of living a happy and abundant life because a college education helps him to make life's adjustments by giving him the opportunity to learn more about his environment and how to live with other people—social efficiency. The greatest problem in life is the problem of adjustment, and adjustment is basic to happiness. His opportunities for service are increased by a college education. With a better understanding of the needs of society, a more active part

can be taken in the adjustment of our social and economic evils.

Life is so dynamic that adjustments once made do not insure eternal happiness, because changing conditions necessitates new adjustments. The problem is to adjust ourselves constantly so that we are in more nearly perfect accord with our environment. The logical conclusion then is: Anything which will assist us in adjusting ourselves to our environment or our environment to our wants will increase our prospects for happiness. The scientific approach to the problem is to learn more about our environment so that we may understand it more thoroughly and adjust ourselves with less difficulty.

The problem of determining the correct relationship of values of the various component parts of a college education is one which every student must face. Certainly each student desires to know just how he can get the most out of his four years' attendance at college.

As the fruits and flowers spring from their seeds, so do characters develop from the thoughts implanted in our minds. Every act is first a thought, and without thoughts there is no action. The "within" is constantly becoming the "without." A noble character is the outward manifestation of noble thoughts. A brutal, ignoble character is the outward sign and record of low, bestial thoughts.

So, it is apparent that we mend our characters as we will. We hold within ourselves the key. That we are the architects of our characters we can easily prove. If we will carefully watch and govern our thoughts, we will soon see the results of these thoughts in our own lives, and in the lives of others with whom we come in contact.

There is nothing more magnetic and refreshing than an honest, forceful personality—that quality that makes people like to be around you. How to obtain a forceful personality can not be expressed in the form of an equation. However, one way to obtain it is to model after those that really have a worthwhile personality.

Next to personality is tact—that quality which causes a man to do the thing which is most appropriate to the occasion. It is more important than talent, for talent often fails when tact succeeds. Some students are naturally tactful, others who are not tactful, but who have certain roughness or carelessness of manner, may acquire tact, not merely by observation, but by continued practice.

Extra curricular activities to which most every student devotes part of his college life take time, energy and considerable thought. These three items have a potential value. However, their actual value is dependent upon how they are expended. It may be safely said the cost of extra curricular activity is measured by the value of whatever else might be done in the time spent, if it were not spent in such activities.

The activities will teach a person to accept responsibility, to work with fellow Homo sapiens, to overcome difficulties, as well as help him form habits of reliability and standards of perfection. Activities will place responsibility on a person and force him to use his own ingenuity in performing a given task. In this way they prepare him for later life.

In summation, then, activities in their proper place are a benefit to those taking part in them, but when a false value is placed on their importance they become a serious detriment.

Every student should strive to attain high scholastic honors. By obtaining high grades a student proves he not only has potentialities but he proves further his competence in using and developing those innate abilities. Once a student has attained sufficiently high scholastic standards his next problem is to avoid being nothing but a book worm—worms often develop into winged insects that flit around over the country and are great pests. Through the media of outside

activities this might be averted. In this instance Sigma Zeta offers students an unusually large number of opportunities to show their abilities—put into actual practice the book knowledge they have acquired.

Character, Personality, Tact, Activities, Grades—average them and determine your level.

A valuable part of one's education comes after graduation. It results from living life itself, and that is the education called self-education. It is indispensable that as we live, we should strive always for self-betterment. We should try never to let a day pass without adding something to our store of wisdom. Every person has two educations, one he receives directly from others, the other, he gives himself. Self-education is the development of all our faculties.

Success, an abstract term envied by all, may be realized within certain limits if one becomes acquainted with the "Success Family". The father is work. Other important members of the family are: Ambition, Common Sense, Perseverance, Honesty, Foresight, Enthusiasm, Cooperation, Courtesy, Economy. Quite a family, not? But if you will just make friends with the "Old Man" you will meet the others in due time—get acquainted, and you, too, will achieve what Louis Agassiz, at the age of twenty-two wrote in a letter to his father, "I wish it may be said of Louis Agassiz that he was the first naturalist of his time, a good citizen, and beloved of those who knew him."

If a man empties his purse into his head, no one can take it away from him. An investment in knowledge always pays the best interest. — Franklin.

POLLYWOGS

The pollywog in youth can swish
About the pool, a long-tailed fish;
He browses on the sunken weed,
He lives the life all fishes lead,
And makes, we have no sort of doubt,
Fast friends of eels and bass and trout.
And then another life begins—
He sheds his tail, discards his fins,
No longer is a pollywog,
But a land-going, green-skinned frog,
By nature most adroitly planned
To live in water or on land.
Our sort of life is not so good,
We never change from babyhood,
Except to grow a bit each day
And by and by get bald or gray.
We have no rare experience
With two quite different elements;
Nor think with recollection fond
Of when we swam about the pond.
Yet, notwithstanding, I'm afraid,
We'll have to stay as we were made.

—James J. Montague,

Reproduced through courtesy of the New York Herald-Tribune.

A Dr. Lawson of London has figured out that the body of an average man weighing 140 pounds contains enough water to fill a 10-gallon tub, enough fat for seven cakes of soap, enough carbon for 9000 lead pencils, enough phosphorous to make 2200 match heads, sufficient magnesium for one dose of salts, enough iron for a medium-sized nail, enough lime to whitewash a chicken coop, and sufficient sulphur to rid one dog of fleas. And, he adds, "The value is essentially the same whether the body is that of a village idiot or an Einstein."

Be not merely good; be good for something. — Thoreau.

A surgeon was performing an operation when a fire started in a building across the street illuminating the whole operating room. Having finished, the doctor said, "I think the patient is coming to. You had better pull down the shades. I don't want him to think the operation hasn't been a success."

Out of our total population of about 120,000,000 people over 22,000,000 are today receiving money from the federal government. There are over 6,000,000 directly on the payroll, while at least 13,000,000 are obtaining relief money and another 3,000,000 are receiving checks for reducing crop acreage.

CHAPTER LETTERS

KAPPA—1935

Western Illinois State Teachers College
Macomb, Illinois



Wm. Nebergall
Master Scientist

The Kappa Chapter of Sigma Zeta was organized in May, 1935, and since then has grown in size and prestige until it is now one of Western's outstanding organizations. We, its members, are proud to think that in our short year we have accomplished so much, but we feel sure that the future holds many possibilities for improvement.

There are now forty-three active members, including fourteen faculty members from the various science departments. Dr. Morgan, our college president, is an honorary charter member. New members are initiated at the first meeting of each quarter.

The programs for the entire year have been furnished by the members of the society, each department being responsible for at least one meeting. The first four programs were given by a faculty member from the Biology, Mathematics, Chemistry, and Physics Departments respectively. The remainder of the meetings were in charge of the senior members.

During the year we have heard interesting and valuable lectures on "A Spectre Vanquished," a talk on insulin, "Notations and Calculations from Abraham to Hitler," "Elements of the Quantum Theory and Some Major Factors Supporting It," "Nature in the Raw Is Seldom Mild," and "Animal experimentation." The last topic was presented by the senior members of the Biology Department and included interesting and contradictory phases of animal vivisection.

The next meeting will be in charge of the historical geology class and promises some real entertainment.

Anyone who is interested in the topics which we discuss is invited to our programs. In this way we feel we are doing a service to our college.

The meetings are held once a month, the place being determined by the department in charge. As yet we have held no strictly social meeting. We considered having a Homecoming Banquet, but since our Chapter is so young we felt that this would not be appropriate.

Membership

Officers: William Nebergall, Master Scientist; Helen Lawless, Vice Master Scientist; Marjorie Black, Recorder-Treasurer; Lawrence Wickliffe, Historian.

Active: Ruthanne Barclay, Dr. C. W. Bennett, Mary A. Bennett, Marjorie A. Black, Fred H. Currens, Lyle Drake, Zilpha Ecklund, W. H. Eller, Pearle T. Forrester, R. M. Ginnings, Gerald Harper, Claude Hesh, Royal Hodges, Waldo Horrabin, Louise A. Hoskin, Clarence Hubbard, Margaret Hunt, Helen Lawless, Virginia Leighty, Edward Lemon, Harlan Litchfield, Wayne Maxwell, Galen Moore, William Nebergall, Dr. Paul Newreiter, Maurice Peterson, Willard Piper, George Prentice, Mando Primo, Roy Sallee, E. Schreiber, Ruth Shriver, Wayne Stoneking, Curtis Strode, Brinton Sullivan, Charles Taylor, K. Thompson, Dale Thuren, Dr. A. G. Tillman, Kenneth Veech, Dr. H. D. Waggoner, Lawrence Wickliffe, W. P. Morgan.
Zilpha Ecklund, Ed.

The men who make history, have not time to write it. — Metternich.

THETA—1932

Elizabethtown College

Elizabethtown, Pennsylvania

The Theta Chapter of Sigma Zeta held many interesting and very instructive programs in the past year.

Throughout the year each meeting was based on some special phase of scientific study. At one meeting the discussion was based on "Modern Advances in Medical Science," at which time Dr. Butterbough, local physician and honorary member of Theta Chapter, gave a very interesting lecture.

Another very instructive program was motion pictures given by the biology department on "What the Forest Means to You," and "Water and the Forest."

At the March meeting a phase of physics was discussed. Dr. Hartzler, professor of physics, and John Glass gave demonstrations and discussed "Glass Blowing" and "The Construction of the Neon Sign."

Our April meeting will be devoted to some phase of chemistry. At the May meeting election of officers for 1936-37 will be held, and also a social or picnic for the club.

The club is also at present sponsoring the bird banding project which was started three years ago. The club took in two new members this year, bringing the membership to 21, with eight active members and 13 associate members.

Membership

Officers: Martha E. Graff, Master Scientist; Paul Hern, Vice Master Scientist; Pauline G. Hamilton, Secretary-Treasurer; Professor G. S. Shortess, Faculty Advisor.

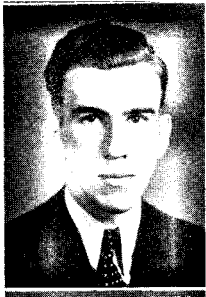
Active: Helen Ott, Ruth Longmeeker, Helen Shertzer, Alexander Glassmire, Luke Buffenmyer.

Associate: Woodrow Schlosser, Harry Gring, Roy Pflatzgraff, Dorothy Graybill, Lucille Brown, William Schaffer, Grace Reber, L. Heisey, Dorothy Hollinger, Samuel Longenecker, John Glass, Russel Ebling, Carl Herr.

Pauline G. Hamilton, S.-T.

BETA—1926**McKendree College**

Lebanon, Illinois



Carl Koch
Master Scientist

This year has been a very busy and most successful one, due mainly to our increased second semester activities.

There were six new members initiated on December 12, 1935, bringing our active membership to fifteen. These new members initiated were: Dr. E. R. Spencer, professor of biology; and five students—Velma Hamilton, junior biology

major; Ralph E. Whitson, junior chemistry major; Emil F. Frech, senior chemistry major; Bernard H. Baldrige, junior chemistry major; and Harold A. Stout, senior mathematics major. There are two other individuals who are prospective pledges before the end of the present semester.

This year's main activities, carried on by the Beta Chapter, have been centered around the following: The drawing up and adoption of a constitution for our local chapter, upon which a committee appointed for this purpose worked very industriously, and did a very thorough piece of work. The final adoption of the constitution, after much revising and amending, was carried out on March 12, 1936. The continuance of conducting an essay contest to be entered only by freshmen writing upon some scientific subject, was unanimously agreed upon. This plan of contest has been carried out annually during the second semester for the past three years, and each contest has proven quite successful.

In order to commemorate the tenth anniversary of the chapter, a banquet has been arranged to which friends will be invited for the purpose of stimulating an increased interest in the society.

Beta Chapter is looking forward with great interest to the approaching conclave at Cape Girardeau, during which we hope to meet our old friends and make many new ones.

Membership

Officers: Carl F. Koch, Master Scientist; Iva Lou Cralle, Vice Master Scientist; Dr. C. J. Stowell, Recorder-Treasurer; Mary Dieckmann, Assistant Recorder.

Active: Iva Lou Cralle, William P. Eaton, Mary T. Knapp; Clyde Melton, Carl F. Koch, Mary Dieckmann, Velma Hamilton, Ralph E. Whitson, Emil F. Frech, Harold Stout, Bernard Baldrige, Dr. E. R. Spencer, Dr. G. A. Scherer, Dr. C. J. Stowell, Professor S. M. McLure.

Carl F. Koch, M. S.

ALPHA—1925**Shurtleff College**

Alton, Illinois

Alpha Chapter has experienced what we considered a rather successful year. We have had several talks by prominent men of the community, as well as several student papers. Some of our meetings were well attended. As well as showing activity along this line, we have also taken into associate membership twelve students who promise to become very active material to forward our local chapter.

Among the programs presented this year were the following:

H. E. Musselman of Peoria, Illinois, presented an illustrated lecture on "Bird Life." Mr. Musselman is known as an authority on birds. This talk was open to the public.

Dr. Miles, professor of mathematics and physics at Shurtleff, favored us with a lecture entitled "Mathematical Deduction of Stresses and Strains."

C. E. Silk and Chas. Nisbett gave a burlesque lecture on explosives. This lecture, while not very instructive, was considered amusing.

A new movie machine was bought by the college and Sigma Zeta borrowed this machine, and showed some films put out by the State Health Department.

Dr. Anderson, Research Director of Shell Refinery at Wood River, Illinois, enlightened us with a talk on "Selective Solvents as used in Lubricating Oils."

Membership

Officers: C. Earnest Silk, Master Scientist; Charles Nisbett, Vice Master Scientist; Gladys Bistline, Recorder-Treasurer.

Active: C. Earnest Silk, Charles Nisbett, Gladys Bistline, Hugh Sargent, Louis Chennalley, Con Broman, Bob Sutton.

Associate: Don Morganroth, Kenneth Hornbuckle, Grace Toomey, John Stewart, Elizabeth Blair, Paul Ross, Harvey Schmidt, Gordon Haxel, Ferdinand Meyer, Mildred Chapee, Buella Zercor, Chas. Hack, Katherine Stevenson, Ed Morganroth.

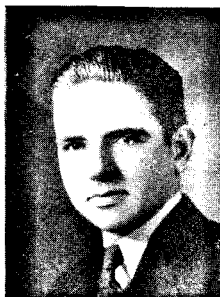
C. Earnest Silk, M. S.

Dignity consists not in possessing honors, but in deserving them. — Aristotle.

On a street car, a man rose to give a woman a seat. She fainted. On recovering, she thanked him. Then he fainted. . . . Although aluminum has been produced commercially for less than 50 years, articles and forms into which this youngster among metals is fabricated number well over a thousand. The list starts with accelerators and goes right through to xylophones.

If everybody in this world were six feet tall and a foot and a half wide and a foot thick, then the whole of the human race could be packed into a box measuring half a mile in each direction. . . . A Swiss chemist claims he has made a synthetic male sex hormone from the grease of sheep's wool. Well, the human male may be like a sheep, but we've always looked upon him more as a goat.

ETA—1929
State College
Cape Girardeau, Mo.



Stanley Atchison
Master Scientist

In terms either of achievement or of popularity, Eta Chapter has had a year of which it may justifiably be proud. Not only has its membership been increased to the record total of 60, but its activities have been of such number and character as to sustain the active interest of the membership.

Eta Chapter made a departure last summer by holding meetings during the summer session of school. These meetings were conducted semimonthly as usual and presided over by the Master Scientist, William Moore. Business sessions were, of course, closed, but the programs were open, and the student body was invited to attend. A picnic climaxed the summer's activities.

A few years ago, a room in the basement of Science Hall was assigned to Eta Chapter for a meeting place. This year the room has been furnished—painted and equipped with folding steel chairs, cabinet, curtains, name plate and various other accessories—and is now quite attractive.

Two constitutional amendments have been made necessary. One separates the hitherto joined offices of recorder and treasurer. The other removed the penalty for non-attendance.

Membership in the young Missouri Academy of Science has been continued. Eta Chapter affiliated with this organization two years ago.

Following is a summary of the year's program:

June 12—"The Romance of Water," by Dr. A. C. Magill.

June 26—"Crime Detection," by James A. Finch, Jr.

July 17—"History of Mathematics," by Ben Borchelt. "History of Biology," by William Hart. "History of Chemistry," by Robert Smith. "History of Physics," by Thurston Hill.

Sept. 25—Chemical Demonstration by W. A. Buckner.

Oct. 9—"The Record of the Rocks," by A. S. Duckworth.

Oct. 23—Initiation for the fall term.

Nov. 13—"The Fourth Dimension," by Miss Myrtle Knepper.

Dec. 11—"Tales that Dead Men Tell," by Ned Emery.

Jan. 8—Report on A. A. S. Convention, by Dr. Magill and Dr. Bolen.

Jan. 22—"Recent Developments in Neural Physiology," by Wm. Hart.

Feb. 12—Initiation for the winter term.

Mar. 11—"Interesting Things About Missouri," by Dr. A. C. Magill.

Mar. 25—Initiation for the spring term.

In concluding, let me express the hope that Eta Chapter will have the privilege of serving as host to a record number of Sigma Zetans at the Conclave, April 17 and 18.

Officers: Master Scientist, Stanley Atchison; Vice Master Scientist, Robert Smith; Recorder, Charles White; Treasurer, Frank Zillmer; Historian, William Hart; Sponsor, Dr. H. R. Bolen.

SIGMA ZETA MEMBERS

Active: Dr. H. R. Bolen, W. A. Buckner, A. S. Duckworth, George V. Emery, Burwell Fox, Jr., B. F. Johnson, Miss Myrtle Knepper, Dr. A. C. Magill, W. A. Ownbey, C. J. Payne, G. G. Pritchard, Stanley Atchison, Roy Barber, Margaret Bowman, Gwendolyn Duncan, Ned Emery, Denman Evans, Edna Evans, Sam Fine, William Hart, Herbert Kiehne, Beverley Koeppel, Wilson E. Langley, John C. Magill, William Moore, Walter W. Parker, Jr., Edwina Riley, Robert Smith, Milton Ueleke, Imogene Weston, Charles White, Phillip Williams, Charles F. Wilson, Frank Zillmer.

Associate: Hugh V. Ashley, Norma Barks, Irma Bender, Louise Bender, Willard Bennett, Frances Booker, Adagene Bowman, Raymond Brooks, Benilda Cespedes, Frank Dunn, Edna Hedden, Thurston Hill, Maud J. Lowe, Virginia Lynn, Estel Mabuice, John McClendon, Nelson Morgan, Mona Olsen, Elizabeth Penzel, Evelyn Poe, Dymple Province, Ted Rueckert, Mary M. Russell, Glenn Weible, Marvin Wilkening, Mary Wise.

The learning and knowledge that we have is at the most but little compared with that of which we are ignorant. — Plato.

There are 6000 different kinds of ants in the world. . . . And it takes only 17 days from the time a flea egg is laid to produce a flea in first-class biting condition. . . . According to some fancy calculations made by Mr. W. J. Humphries of the U. S. Weather Bureau, if all the ice of the Polar caps melted, the ocean levels would rise 151 feet. . . . A rat eats about four pounds of food a month. . . . To get a daily meal, an oyster filters about 35 quarts of water. . . . If you were to dish out all the salt in Great Salt Lake, there would be 50 tons of it for every man, woman and child in America. . . . Oystermen credit an aboriginal man with the discovery of the oyster. This curious fellow saw a peculiar looking "stone" in the water. He picked it up and the oyster closed its shell on his fingers. He smashed the shell from his hand with a handy rock, put his punched finger in his mouth, and a smile crept over his aboriginal face as he discovered to his surprise and pleasure the delicious flavor of oysters on the half shell. . . . It is possible to buy a machine to register the pulling power of a flea. . . . Missourians who kick about the mill tax should be glad they don't live in the Province of Fykien, China, where taxes are collected 12 years in advance. . . . A single female oyster spawns about 50,000,000 eggs a year.

EPSILON—1929

Otterbein College
Westerville, Ohio



John Cook
Master Scientist

The Epsilon Chapter at Otterbein College has had an interesting year.

In November the Chapter entertained all the new students who were majoring in science with a banquet. Professor McClung acted as master of ceremonies.

The Chapter also sponsored a lecture on "Life in the Far North," by Captain Hammond, who had lived among the Eskimos for several years.

This was a particularly great drawing card for the young people of the community as well as for the college students.

At one meeting, we had a talk on the Pure Food and Drug Acts by Professor A. J. Esselstyn of the Chemistry Department. During the year we had many such interesting meetings.

Our next meeting is to be initiation. We now have thirty associates, many of whom we hope to have active before the close of the school year.

Membership.

Officers: John Cook, Master Scientist; Jack Baker, Vice Master Scientist; Esther Little, Recorder-Treasurer.

Active: Robert Funk, Sarah Wagner, A. J. Esselstyn, Dr. E. W. E. Shear, Dr. L. A. Weinland, J. H. McClug, F. A. Hanawalt, B. C. Glover.

Associate: Anita Bundy, Roy Lucas, Burdette Muhelson, Evelyn Nichols, Sam Zeilger, Harold Bell, Ruth Cook, Howard Eastman, Denton Elliot, Robert Hanks, Charles Harding, Jay Hedding, Mary M. Moomaw, Ralph Scherer, Clarissa Schaffer, Harold Conrad, John Flanagan, Ernest Preteche, Elmer Funkhouser, Alice McClug, Gladys McFeely, Emerson Shuck, Roland Steinmetz, Edmond Booth, Virginia Norris, Geraldine Murphy, Mary Musser, Tom Brady, Joseph Fields, Virginia Hetzler, Duave Mills, Don Martin, Russel Brown, Roy Suavely, Clarence Pope.

Esther Little, R. T.

As the soil, however rich it may be, cannot be productive without culture, so the mind without cultivation can never produce good fruit. — Seneca.

ZETA 1929

Central State Teachers College
Stevens Point, Wisconsin

The Zeta Chapter held its first meeting on October 16, 1935. Since then eleven active members have been taken in. At present we have no associate members although the club is planning to add several to its list the next meeting. Dr. Horton, biological science teacher, and Dr. Lyness, training

school critic, were taken in as honorary members.

Our programs during the year consist of talks given by various active members and professional men. Especially interesting was a trip through our local printing works.

For the second year our club will sponsor its Open House program. School members from surrounding territories are invited to attend the various exhibits shown by different science departments. Talks are given during the day by prominent scientists.

Membership

Officers: Frank Menzel, Master Scientist; Ronald Neff, Vice Master Scientist; Dolores Skarweski, Secretary-Treasurer.

Active: Bessie May Allen, Jessie Jones, Burton Pierce, T. A. Rogers, V. E. Thompson, Emily Wilson, Dr. Lyness, Alvin Bucholta, Margery McCulloch, Maxine Miner, Ronald Neff, Charles Scriber, Mabel Solberg, William Theisen, Russel Way, Charles C. Evans, Helen Meston, R. M. Rightsell, F. J. Schmeekle, C. F. Watson, Dr. Horton, Ellery Bassler, Frank Menzel, Anita McVey, Alicia Jones, Illa Rodger, Dolores Skarweski, Robert Steiner, Norma Truesdale, Fern Van Buren.

Dolores Skarewski, S. T.

Science is the systematic classification of experience. — George Henry Lewes.

GAMMA—1927

Medical College of Virginia
Richmond, Virginia

The Gamma Chapter of Sigma Zeta has enjoyed thus far a very interesting and instructive group of meetings. It has been our program this year to set aside as many meetings as possible for the discussion of current literature. We have thus brought about a new interest among our members. However, we have also had several very interesting discussions of papers read by members and members of the faculty. Among them were: "Fungus Infections of the Respiratory Tract," "Etiology of Pain," "Treatment of Gonococcal Vaginitis," and "The Study of Three Cases of Monozygotic Twins."

We believe that by revising our programs so as to give each member at each meeting a chance to express his views on recent articles, as well as to hear the criticisms of others, has brought about a very entertaining result. As shown by our success in gaining approximately a ninety-five per cent attendance at our meetings, we heartily recommend this plan to our other collegiate fraternities.

Membership

Officers: E. W. Lacy, Master Scientist; J. G. Welch, Vice Master Scientist; Leroy Smith, Recorder-Treasurer; R. W. Sharp, Editor.

Active: E. W. Lacy, R. W. Sharp, Leroy Smith, J. G. Welch, E. A. Welchons.

Associate: D. C. Booker, A. F. Cistero, R. R. Eason, W. H. Evans, W. F. Fidler, W. Y. Garrett, L. C. Gay, H. C. Handcock, Wm. Hoover, A. T. Morgan, F. Pole, J. Sedwick, S. Warshauer.

Leroy Smith, R. T.

COMMITTEE CHAIRMEN

Introducing Those Responsible for the
Conclave

William Alonzo Moore
Chairman of Housing
Committee



Bill Moore, Fornfelt, Missouri, entered State Teachers College in January, 1933, with a remarkable record of scholastic achievements in high school, having ranked highest in his classes, from the eighth grade until his graduation.

Bill has not only consistently maintained this high standing throughout his college career but has been very active in many of the college organizations. He was winner of the Kappa Delta Pi Scholarship for the highest ranking sophomore and winner of the Cape Girardeau Scholarship for the highest ranking junior. He served as president of his literary society, the Benton, for one term and has held two other offices in this organization. He represented the society in inter-society debates.

As an active member of Sigma Zeta he has served one term as Master Scientist and has held two other offices. In April, 1934, he represented this organization at the National Conclave held at Westerville, Ohio.

He is a member of Kappa Delta Pi and is vice-president of the organization. During the time that the Capaha Arrow was under student control Bill was a member of the staff. Other organizations in which he has been active are the College Band and the Forum. He is also business manager of the Sagamore for 1936 and is student representative on the board of publications control.

He is a personable young man with brown eyes, red hair, freckles and, as this goes to press, is still single.

Those we call the ancients were really new in everything. — Pascal.

A scientific magazine now claims that caterpillars, when properly prepared, are very palatable and of undoubted nutritive value. . . . University of North Carolina has 18,000 living alumni. . . . Herbert Hoover, Jefferson Davis, William Penn, David Livingston, Benjamin Franklin, Henry Hudson, and Ben Hur are registered at the University of North Carolina this year. . . . A California man makes his living catching, emblaming and selling grasshoppers to fishermen. Last year he shipped 2,500,000 grasshoppers to all parts of the country. He packages them in cellophane, 50 to a package. . . . The temperature of the ice-covered Polar Sea influences

Edwina Frances Riley
Chairman of the
Banquet Committee



Edwina Frances Riley graduated from Roosevelt High School, Fresno, California, in June, 1933, at the head of a class of 169. She holds a life membership in the California Scholarship Society. She entered State Teachers College in September, 1933, and is working toward a B. S. degree in Education. By having attended the summer and winter terms, she will graduate in May of this year. She is 19 years of age.

She was one of the ten highest ranking freshmen her first year and has received good grades during her college career.

She belongs to all of the college organizations except the "Hod Carrier's Union." This she rejected because of the work it entailed.

At present she is secretary of the Black Mask Dramatic Club, first vice president of the Clio Literary Society, member of the Sigma Zeta, Sigma Tau Delta, Kappa Delta Pi and the Sagamore Staff.

To further her preparation for high school teaching, she plans to attend Columbia University next year. She will take her master's degree in foreign languages.

Her major in State Teachers College is English and her minor is mathematics.

There's really quite good material in her. Age and experience and some good hard work may make a woman of her yet. Here's hoping!

To be ignorant of the lives of the most celebrated men of antiquity is to continue in a state of childhood all our days. — Plutarch.

the temperature of the whole Northern Hemisphere. . . . Every day is Sabbath to somebody in the world. Monday is the Greek Sabbath, Tuesday the Persian, Wednesday the Assyrian, Thursday the Christian. . . . A laboratory has been built under ground at the U. S. Bureau of Standards, where finally accurate optical lenses can be ground with least interference from dust and vibration. . . . Long before the introduction of anesthetics, Egyptian surgeons employed a very effective method of numbing pain; the patient was hit over the head and the surgeon performed the operation while the customer was unconscious from the blow.

William Milton Hart
Chairman of the
Publicity Committee



William Milton Hart was editor of his high school paper the year of his graduation in 1931-32. He entered State Teachers College in the fall of '32 for a pre-medic course, and is forging straight ahead toward an M. D. at Washington University Medical School. He will receive his A. B. degree here this summer.

Bill's major is science with a minor in English, but his heavy course has not prevented his participating in many of the worth-while activities of the college. He has served as president of the Y. M. C. A. and counselor of this organization at summer camp.

He is a member of the Benton Literary Society, the Sigma Zeta and Pi Mu Omicron. He is president of Pi Mu Omicron and was Master Scientist of Sigma Zeta in 1935. He is chairman of the publicity committee for the Conclave of this year.

He has served faithfully and well all of the organizations to which he has belonged. Hard working, quiet, unassuming—a serious chap. Young men like Bill are few and far between. They are not made any finer or better. Sigma Zeta and State Teachers College will say proudly of him some day, "He once belonged to us."

All men are like in their lower natures; it is in their higher characters that they differ. — Bovee.

MY LITTLE DOGGIE

I have had, however, as you probably have, a very interesting gadget in my head I call my little doggie. If I am at a loss for a particular item, say a name, I start some sort of an activity going in my head and go about my business. Some time, usually within a day or two, but it has been weeks, up comes the name in my head.

It is not an accident, something has gone after it and brought it to me. Thereafter for some time that name will be at my service.

Of course, this isn't ideal—it is useless in either introductions or reparatee, but it is much better than nothing. Usually the doggie will not go for more than one thing at a time. You can neither hurry him nor boss him.

I suppose he follows the association paths in my head, rushing here and smelling there and setting a trap somewhere else and at last dragging his victim out into my consciousness with great pride. Sometimes he returns with his tail between his legs and rolls on his back in token of failure and giving up.

If that is a chemical reaction it is a most devious and long-drawn-out one

Dr. S. R. Williams.

Frank Zillmer
Chairman of Committee on Registration and Finance



Frank A. Zillmer graduated at the head of his class from the high school at Morehouse, Missouri, in the spring of 1933.

He entered State College in September of the same year and was one of the ten highest ranking freshmen for the year 1933-1934. His attendance at college has been unbroken, having re-

mained for the two summer terms and, as a result, will receive his A. B. degree in May of this year.

Besides carrying his course of studies he has taken part in student activities and is a member of several organizations. These are the Benton Literary Society, Forum, Black Mask Dramatic Club and Sigma Zeta. He is at present serving as treasurer of the local chapter and is chairman of the committee on Registration and Finance for the conclave. Aside from all this Frank has been a student assistant in the college library for two years. One wonders if and when he has found time to sleep.

His plans next year are to enter Illinois University to continue his study of Economics. There is no doubt of his plans materializing. Young men of his calibre always find a way.

The resources of the scholar are proportioned to his confidence in the attributes of the intellect. — Emerson.

OPPORTUNITY

With doubt and dismay you are smitten;

You think there's no chance for you, son?
Why, the best books haven't been written,

The best race hasn't been run,
The best score hasn't been made yet,
The best song hasn't been sung,
The best tune hasn't been played yet;

Cheer up, for the world is young!

No chance? why the world is just eager

For things you ought to create.
Its store of true wealth is still meager,
Its needs are incessant and great.
It yearns for more power and beauty.

More laughter and love and romance,
More loyalty, labor, and duty,

No chance—why, there's nothing but chance!

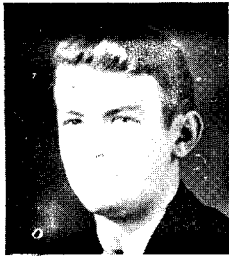
For the best verse hasn't been rhymed yet,

The best house hasn't been planned,
The highest peak hasn't been climbed yet,
The mightiest rivers haven't been spanned.
Don't worry and fret, faint-hearted;

The chances have just begun,
For the best jobs haven't been started,
The best work hasn't been done.

—Berton Braley.

Robert J. Smith
Chairman of the
Program Committee



After four busy, constructive years in high school, Bob Smith of Elvins, Missouri, graduated as valedictorian of his class and entered the Junior College at Flat River in the fall of 1932. While there he served as student assistant in chemistry and was a member of Phi Theta Kappa, a National Junior College Honor Society.

He entered State Teachers College in the fall of 1934 and will receive his B. S. degree in May of this year. He has majored in Physical Science and minored in Biological Science and Mathematics. He has served as student assistant in chemistry for the past two years.

He is at present vice president and chairman of the program committee of the Eta Chapter of Sigma Zeta. Other organizations of which he is an active member are the Benton Literary Society and Kappa Delta Pi.

A pleasing personality—modest and most likeable—the type of young man who does big things in a quiet way.

Knowledge is of two kinds. We know a subject ourselves, or we know where we can find information upon it. — Johnson.

A shoat is a slide they use to shoot pigs down. . . . The function of the clitellum of an earth worm is to separate the anterior from the posterior. . . . Hermaphroditic, the disease that causes hydrophobia. . . . The medusa stage is the helpless stage or the stage before adulteration. The eye is focused by a pull from the pyloric. . . . Parthenogenesis is the producing of young without fertilization, such as tickling a frog with a straw, causing it to lay eggs. . . . The cloaca is the sounding apparatus of the frog. . . . The types of scales on a fish are gonads, colloids and triploids. . . . A co-ed is a girl who can memorize two sonnets of Shakespeare, but always keeps forgetting her pocketbook. . . . Bigamy—that's when a man tries to serve two masters. . . . Monotony, the law limiting a man to one wife. . . . Spice, the plural of spouse. . . . An angle, a triangle having only two sides. . . . A circle, a line which meets its other end without ending. . . . Trigonometry, having three wives. . . . Equinox, a man living near the north pole. . . . Faculty, a body of men surrounded by red tape. . . . Nicotine, a poison so deadly that one drop on a dog's tail will kill a man. . . . Skeleton, a man with his insides out and his outsides off. . . . Water is a light-colored wet liquid which turns dark when you wash in it. . . . Anatomy is the human body. It is divided

into three separate parts, the haid, the chest and the stummick. The haid holds the skull and the brains if there is any; the chest holds the liver and the stummick holds the vowels which are a, e, i, o, u, and sometimes w and y. . . . A door knob is a thing revolving door goes around without. . . . A straw is something which you drink through two of them. . . . Cobble stones are a pavement people would rather were asphalt. . . . A fern is a plant that you are supposed to water it once a day but if you don't it dies, and if you do, it dies anyway only not so soon. . . . Summer is a season that in winter you wish you could keep your house warm as. . . . A cartoon is a funny drawing that makes people laugh when other people claim cigarettes come in it. . . . Cream is something which dry cereal doesn't taste as good without it, unless you use milk but haven't any. . . . And one car they are all dying to ride in is the hearse. . . . Birth records is kept so when you die and have no friends they can find out how old you was. . . .

Behavior is a mirror in which every one shows his image. — Goethe.

Elbert Hubbard once wrote a paragraph on "Horse Sense." Although applying directly to industry, it is equally applicable to the men in school work:

"If you work for a man, in heaven's name work for him. If he pays wages that supply your bread and butter, work for him, speak well of him, think well of him, stand by him, and stand by the institution he represents. I think if I worked for a man, I would work for him. I would not work for him a part of the time, but all of the time. I would give an undivided service or none. If put to a pinch an ounce of loyalty is worth a pound of cleverness. If you must villify, condemn and eternally disparage, why, resign your position, and when you are outside, damn to your heart's content. But I pray you, so long as you are a part of an institution, do not condemn it. Not that you will injure the institution—not that—but when you disparage the concern of which you are a part, you disparage yourself."

APPRECIATION

I appreciate the many expressions of confidence and compliments that have come to me during the time I have been Grand Editor. Too, I appreciate the cooperation extended by the chapters and helpful suggestions of friends. Especially do I wish to thank Miss Dale Watkins who so generously aided in typing and arranging the manuscript. This inestimable assistance has served as an ever-present incentive to me.

No one can take the position of Grand Editor of the Sigma Zetan without a deep sense of responsibility. In closing may I say, I have done my best as Grand Editor to carry on the great work to which the organization is dedicated.



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