

# MEMOSCOPE

FALL  
1946



## PRESIDENT'S CORNER

In the early deliberations of the Postwar Planning Committee the question arose as to the needs and practicability of launching an institutional publication, serving as a house organ. Later on the Committee made the following recommendation:

"Good teaching should be the first consideration of each member of the faculty of the Northeast Missouri State Teachers College, but encouragement and help should be extended to those who also wish to prepare articles, brochures and books for publication. As a means to encourage members of the faculty to write for publication, there should be established an institutional publication; the articles appearing in such a publication should be of the type that will appeal to school people and laymen of Northeast Missouri. Such a publication should be a dynamic factor in the program of education and public relations of the Teachers College."

On August 21, 1946, an editorial board for such a publication was appointed. The membership is composed of Dr. Wray M. Rieger, Dr. Pauline Knobbs, Dr. C. H. Allen, Miss Berenice Beggs, and Mr. R. L. McKinney. The functions of the editorial board are to plan, prepare the material, and publish a quarterly magazine dedicated to the promotion of the philosophy and program of the College, to the end that a wholesome public relations program will be sustained and expanded.

The magazine has been named *The Nemoscope*. It is hoped that the *Nemoscope* will become as well known as the *Index* and *Echo*. This is not the first publication of this type that has been sponsored by the College. From September, 1894, to April, 1900, inclusive, the *Normal Message* was published and from December, 1912, to March, 1923, inclusive, the *Rural School Messenger* was published. *The Nemoscope* becomes the successor to these worthy publications. The *Normal Message* and the *Rural School Messenger* served their day well. The faculty can make the *Nemoscope* an effective and worthwhile publication that will be a credit to themselves and the College.

## ABOUT THE COVER PICTURE

These lovely young ladies are grouped together in one of the beauty spots on the campus—The Sunken Garden. Beautiful flowers bloom all summer—but pretty girls grace the campus all year.

# NEMOSCOPE

NORTHEAST MISSOURI STATE TEACHERS COLLEGE

KIRKSVILLE, MISSOURI

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VOLUME I

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NUMBER 1

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## TABLE OF CONTENTS

Why NEMOSCOPE . . . . .	Robert L. McKinney
A. P. Green Fire Brick Co. . . . .	Orion C. Shockley
Fifth Year Program . . . . .	Walter H. Ryle
Murray Case Sells . . . . .	Lundy O. Allen
Violette Museum . . . . .	Homer L. Knight

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Address all communications to Robert L. McKinney, Assistant to the President.

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## WHY NEMOSCOPE?

*You have probably noticed on the inside cover that NEMOSCOPE is a quarterly magazine published by the Northeast Missouri State Teachers College, and it is also likely that the question arose in your mind as to why such a magazine is being published . . . because no such magazine exists might be sufficient reason for us, because we like to pioneer and always have from the time this school was founded to the present day—but there are more reasons. We feel that there is need for such a publication. We have discovered that there are a lot of interesting things about the twenty-five counties which comprise the Northeast Missouri district and we feel that others would like to know about these interesting things too.*

*We in Kirksville for example know that Joseph Baldwin founded the first normal school in Missouri and that Andrew Taylor Still founded the College of Osteopathy here; but do the people of Mexico, Missouri, know about it? And do we here in Kirksville know about the A. P. Green Fire Brick Company in Mexico, Missouri? And do the people in Salisbury or Unionville know about the great Stark Nurseries in Louisiana? And how many of us know what the population trend is in our section of the state and what it is likely to mean to us in the years to come?*

*We have the belief that the Teachers College belongs to the citizens of St. Charles as much as the people of Kirksville and one way we can share this school is to provide service and information to as wide a group of people as is humanly possible. Therefore, we hope to have articles from time to time concerning industrial activities, rural enterprises, sociological items, geological matters, as well as biographical material concerning prominent individuals of Northeast Missouri.*

*If you have suggestions for future articles concerning some enterprise, historical event, or personality in your vicinity, do not hesitate to send them in. Someone will be assigned to collect the necessary information for an article.*

—THE EDITOR.

# A. P. GREEN FIRE BRICK COMPANY

Stop the average man on the street, ask him what he thinks fire brick are used for, and chances are nine out of ten that he will say they are used for fireplaces, fireproof walls, or perhaps even for building houses.

But ask an employee of the A. P. Green Fire Brick Company at Mexico, Mo., and you will get a different answer.

There, at the most advanced fire brick plant in the world, you will be told that fire brick—frequently referred to as Refractories—are the “foundation of industry.” Refractory products are used to enclose heat. Generally speaking, wherever you find heat and smoke, you will find the heat enclosed by brick and mortar made from high heat-resisting clays.

Among the big users of refractory products are the great steel mills that produce the iron and steel serving every human, everyday. The oil, the gasoline, the sugar, the clothes, the shoes, the automobiles, the plows, the lumber, the paint, the bread—just about everything that enters into one's everyday life owes its existence someplace along the line to fire brick. Chances are the stove in your home, the furnace in your basement has a fire brick lining. Certainly, fire brick was used in the making of that stove or furnace.

The manufacture of fire brick is classed as one of the thirty-three basic industries in the United States. Further, fire brick is necessary in each of the other thirty-two basic industries, and the fire brick industry must even use fire brick itself in the manufacture of more fire brick.

Does it come as a bit of a surprise to you? Well, don't worry about it. The above facts also came as a surprise to a number of officials in Washington when the nation got into war production at the beginning of World War II.

When a representative from the A. P. Green Company went to Washington to obtain necessary war priorities, he had to do a lot of explaining about the fire brick industry to a number of officials who just wouldn't believe that fire brick could be so necessary to our nation's war effort. Yes, it took a lot of explaining and even letters from the largest companies engaged in other industries to convince Washington that the nation must have fire brick.

However, it was not long before

by  
*Orion C. Shockley*

private industry, the Army, the Navy, and the Merchant Marines began calling for maximum production from the A. P. Green Company. Such production was forthcoming at higher and higher levels during the war years, and finally earned the A. P. Green Company awards of the Army-Navy “E” and the Maritime Commission's “M” for the outstanding record of achievement attained by the company.

How the A. P. Green Company grew in the last thirty-five years from a very small establishment to a huge modern plant employing 1500 people at Mexico, Mo.; plants in Toronto, Canada, Mexico City, Mexico, and Buenos Aires, Argentina; distributors in all major cities; and agents in twenty-nine foreign countries, is a story similar to that of many other great American business successes. Natural resources, intelligent development, hard-fighting men of great vision and principle, and the courage to stick to a conviction, are all present in the development of the A. P. Green Fire Brick Company.

To begin the story, we must go back to an explanation of what fire clay is and the story of how it was developed at Mexico, Mo. There are many kinds of clay. Some of them are:

fire clay, from which fire bricks are made; shales, from which building brick, paving brick, sewer pipe, and drain tile are made; and pottery clays, which are used to make chinaware and pottery.

The term “fire clay,” properly speaking, refers to those clays capable of withstanding a high degree of heat.

Although there are but a few authentic records covering the fire brick industry prior to 1825, it is quite certain that fire bricks were made before that time, although probably not in a plant devoted exclusively to the manufacture of that product.

Tradition has placed the early beginning of the industry in New Jersey. There is some doubt about this, however, as there is evidence that fire brick was made in Florida before 1800, while that state was a Spanish possession.

The first record of a plant west of the Mississippi River is at St. Louis in 1836. The name of the operator is unknown, but the plant was located on the Gravois Road, and the clay was no doubt from the Cheltenham vein, a good grade of plastic clay.

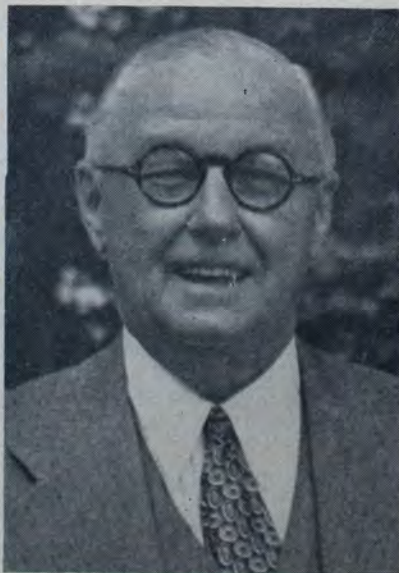
Production of fire brick moved westward until in 1870 the total production reached 60 million nine-inch brick or the equivalent thereof, which is below the present annual capacity of the A. P. Green Plant at Mexico, Mo.

During the next twenty years, there was a tremendous increase in the use of steel, accompanied by steel plant expansion and also the establishment of numerous fire brick plants in Pennsylvania, Ohio, and New Jersey. The production in 1880 was nearly 164 million nine-inch equivalents, and in 1899 it had jumped to 800 million.

During all of this period, the demands of industry for increased types of fire brick were met by the discovery of deposits of more refractory clay and closer selection of raw materials.

In 1905, a lime-bonded bauxite brick was developed which at first offered considerable promise toward higher fusion points, but proved uncertain in its action under high temperature.

It was the efforts of manufacturers to develop higher heat-resistance that attracted nation-wide attention to the diaspore deposits of Missouri. Strictly speaking, there were two separate and distinct exclusively fire clay beds or



A. P. GREEN

deposits in Missouri. One, known as the Cheltenham field mentioned above or the St. Louis district, occurs within the city limits of the present City of St. Louis and extends out a little way into St. Louis County. This district is one of long standing. The clay is coarse-grained but high in impurities and can be made into only a medium grade of fire brick. It lies in a formation about 100 feet under the surface, and mining has always been done by underground shaft mines, using the room and pillar system. The recovery averaged is probably 30 per cent.

The other deposit of fire clay has for years been generally known as the North Missouri field. This district embraces Audrain, Callaway, and Montgomery counties, and also portions of Warren and Boone counties. In this area are found abundant deposits of high grade flint fire clay, plastic fire clay, and brick and tile clay. In some places the fire clays occur in isolated pits of varying size and area. Generally, they are covered with topsoil or overburden, varying from 25 to 100 feet in depth. The quality of the clay in this district, which is now known as the East Central Missouri field, is far superior to the Cheltenham deposit in St. Louis, and is admitted freely by all competitors to be the highest grade fire clay found in the world.

There is still a third very important fire clay field in Missouri. Diaspore, however, is the main product of this field. This field includes Franklin, Gasconade, Osage, Marion, Phelps,

and Crawford counties. This district is noted for its deposits of diaspore clay. Flint fire clays and plastic fire clays are also found in abundance. Mexico, Mo., where the A. P. Green plants are located, is in the east central Missouri district. The famous diaspore field is immediately south. There are no manufacturing plants in this Ozark field, all clays being shipped.

Around the year 1900, water tube boilers, steel furnaces, blast furnaces, glass tanks, and other furnaces called for a higher grade brick than could be made from the Cheltenham clay, because these furnaces were being improved by modern engineering methods. Greater heats were produced. Peaks of demand became more frequent and higher because of the changing conditions of the country. St. Louis manufacturers, realizing these needs, prospected, and either bought fire clay acreage in the north Missouri fields or contracted with independent shippers to ship them the clay, and thus supplied the demand for a higher grade brick by using north Missouri clay.

While the A. P. Green Company ships in a substantial amount of clay from the Ozark district, mining conditions in the company pits at Mexico are ideal. An inspection of the drilling records and analysis and tests of the clay samples shows that it runs uniform, with practically a solid body of virgin clay of the highest quality.

You may ask, then, why clay supplies are shipped in to the A. P. Green plant. Modern brick making—scienti-

fic blending, sizing, and preparing—is the answer to the question. At the present time, it takes more than one type of clay to meet all laboratory developments. Clays are like people. They may all be fire clays, but they have many individual characteristics. Some of them—or a combination of many—may make a finished product that meets much more successfully a certain furnace condition than a fire brick made from another fire clay equal in refractory quality.

There was no element of luck or chance, or what is generally termed as a "business break" in the founding and development of the A. P. Green Fire Brick Company. Of course, nature first deposited the remarkable clays in Audrain County. Still, it was a technical knowledge, training, and vision that enabled Mr. A. P. Green to take advantage of this natural storehouse.

Mr. Green proceeded on a theory that if he could discover a geological formation which would thrust the clay higher than ordinary and if this formation was located in a valley, he would find a deposit of clay under shallow overburden. This meant by using a stripping operation to mine the clay instead of the old shaft and pillar method, he could substantially reduce the cost of getting the clay out of the ground.

In 1915 Mr. Green opened the original pit of the A. P. Green Fire Brick Company, and operated it for ten years or more, taking out over a million tons of fine high-grade clay.

All the foregoing events have led up



A VIEW OF THE A. P. GREEN COMPANY PLANT

to the establishment of the A. P. Green Fire Brick Company. Now what of the man who developed the A. P. Green Company to the point where it is today? What qualified him for the outstanding success he has made in the fire brick industry? Briefly, this: Mr. Green is a native Missourian. He was born in Jefferson City in a little house that stood where the south steps of the capitol are today. His father died while Mr. Green was rather young, so that he was on his own at an age when most boys are little equipped to face the world. He developed into a good boxer, and literally fought his way through the University of Missouri School of Mines and Metallurgy at Rolla, since boxing was the principal source of his income. He then took a government job building levees and dams on the Ohio River. Then to a job with the Harbison-Walker Fire Brick Company, with other brick companies in Ohio as a Harbison-Walker representative, back to Harbison-Walker to become general sales manager, and finally to St. Louis as vice-president and general manager of the Evans and Howard Fire Brick Company.

It was while Mr. Green worked for the Evans and Howard Company that he began to hear of a high-grade fire brick being made in Mexico, Mo. He got hold of some of these bricks, made tests of them, and recognized their worth.

He knew conditions were changing, and better brick than St. Louis could produce from local clays would soon be needed. So he got permission from his company to investigate the Mexico plant. Mr. Green made the investigation for his firm, made a deal that night with the local people, and turned the transaction over to the Evans and Howard Company for their approval. He explained the proposition to them with its advantages, only to have them put thumbs down on the proposition.

Mr. Green told them, "I secured this deal for you with my own money, but if you don't want to buy, I'll see if I can buy the plant myself."

And so he went back to Mexico the next day and spoke to the people there. "Gentlemen, my company has turned it down, but I will buy this brick plant myself. I am going to buy it, but haven't much money. You keep control, but you must agree to let me own the plant outright as soon as I am in a position to pay for it."

Because his manner had impressed the owners of the Mexico plant, and because he was a determined young man with technical knowledge and

ability, and seemed to know what he was about, the deal was made. Thus, in 1910, Mr. Green began to put in practice his ideals and purposes.

A builder by nature, Mr. Green immediately put what profits came, after paying for the plant, right back into the business. Better fire bricks would make more sales. More sales meant more profits. More profits meant more capacity and an opportunity to develop still better products in a better way.

By 1917, the original plant had been enlarged to three times the size it was when purchased. More capacity was actually needed. That, then, called for the building of plant No. 2 in Mexico. While the construction of this plant follows, in a general way, the orthodox construction of fire brick plants of that day, it did incorporate many new ideas.

Periodic or down draft kilns were built. But they were larger. Improved methods of firing were installed. The bottoms, floors and flues were built on a new scientific basis. Dry Press manufacture was adopted on a new, larger, and broader scale. In fact, to many it seemed a rather "venture-some" trail.

It is evident now that Mr. Green had in mind a new and greatly advanced fire brick manufacturing plant that would come in the future. Some of these ideas he was trying in his No. 2 plant. To augment the practical side of these ideas, he established a complete laboratory, operated by engineers educated in the field of ceramics. His idea of progress ran along two parallel courses. First, better products and new products. Second, better manufacturing and new methods of manufacturing.

Soon after plant No. 2 was operating and the laboratory was deep in research, Mr. Green began to merge these two courses. Construction engineers, aided by consulting engineers, were put to work designing still another new factory. It took time to do this. Study was very necessary—study in America, and trips and study of the European ideas and progress. In 1925 all this work was brought down to final plans, and Mr. Green built the first tunnel kiln brick plant in the West. This meant burning of material in continuous kilns. The very important process of drying in this new plant was revolutionary. The old, hot floor method was supplanted by scientific humidity dryers through which the material passes on overhead cars. To these new burning and drying opera-

tions were added many advanced methods of manufacturing, grinding, and material handling.

Since that time, additional tunnel kilns have been built, to make a total of eight now operating at Mexico, Mo. There also has been a corresponding increase in manufacture of equipment and storage space.

To provide trained engineers for the Fire Brick Industry the A. P. Green Company was instrumental in having a department of ceramics established in the University of Missouri School of Mines and Metallurgy, Rolla, Mo.

A number of ceramic engineers now with the A. P. Green Company have been through this school. Men in key positions throughout the organization, and the men behind them have all been hand-picked and carefully educated in the philosophy and principles of the A. P. Green organization.

In the early days the Green Company manufactured three grades of fire brick: high grade, intermediate, and second quality. They also made special shapes and had dry-milled fire clay, which was used for mortar. As fast as the company could earn money for expansion, it went into newer and better angles of the business.

Originally, nearly all brick were made by the stiff mud process. This process consists of forcing the mixed clay through an opening of the shape desired, in a continuous form, and lengths are cut to make the shapes desired.

The A. P. Green Company was among the early pioneers in the development of dry press brick, a process of making brick by machinery under a terrific pressure, whereby the brick are stamped out to the proper size and shape.

There was such a slight difference between the intermediate grade brick and the second quality brick that, as time went on, the intermediate grade was eliminated. Along with this elimination came the full development of three textures in the high-grade product: dry press, stiff mud, and hand made. These, with the various grinds and burns, greatly widen the field for the proper application of a specific brick to meet a special need.

Following these developments came the diaspora, or high alumina, fire brick, which has been perfected in three grades: 50, 60, and 70 per cent alumina, with an 80 per cent for unusual and special cases.

Just how does one go about this business of manufacturing fire brick?

(Continued on Page 11)

# The Development of the Graduate Program at the Northeast Missouri State Teachers College

by

*Walter H. Ryle*

President

Northeast Missouri State Teachers  
College  
Kirksville, Missouri

The political architects who drew the blue print for the American system many generations ago did not attempt to copy any other type or kind of political organization. They based their plan upon the democratic processes of social control dedicated to the ideals of individual freedom and human justice, which were to be defended and sustained by law. To translate this blue print into a practical political system our founding fathers dedicated upon the altar of revolution their material resources, their ideals, and their blood. For the first time in history the interests of the common man won a major victory. Men realized that if this victory was to be sustained there must be a means by which each generation could be taught to thoroughly understand, believe in, and appreciate the democratic processes by which man can live a satisfying life. Out of this realization the American public school system grew and developed upon the principle that the children of all the people should be educated at the expense of all the people. In every community of the country, the public schools soon became the center of the common man's democratic faith. More than a century ago the supporters of these schools recognized that if the "people's schools" were to survive and fulfill their mission they must have the right kind of educational program administered by properly educated teachers. Out of this belief was born the professional schools dedicated to the task of preparing teachers for the public schools of democratic America. The battle to sustain free institutions in America was on in earnest.

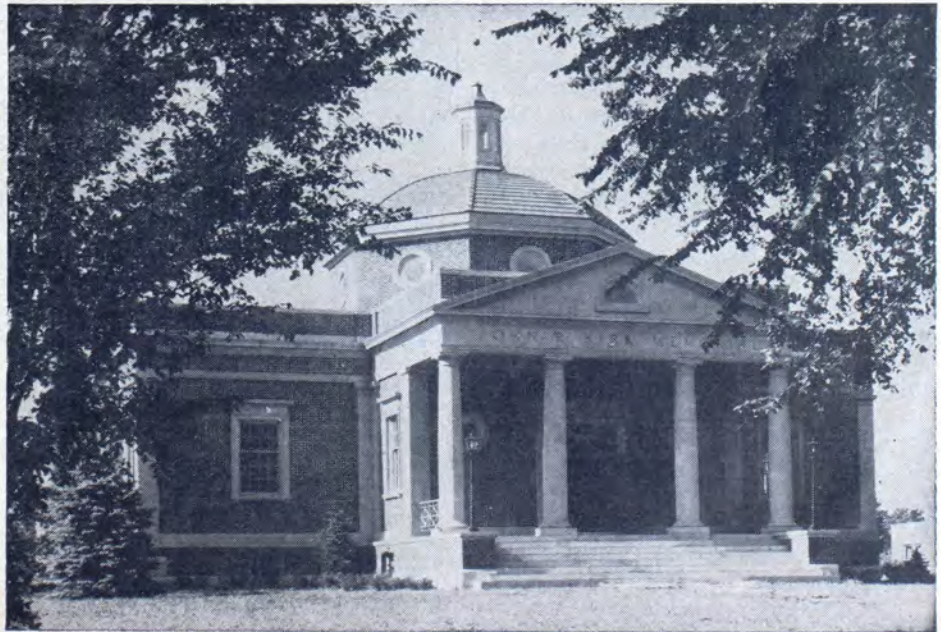
As early as the thirties of the last century the people of Missouri began to realize that incompetent teachers were the greatest obstacles to successful public schools. Shortly before and following the close of the Civil War, the public schools were in a truly deplorable condition. An increasing need was felt for a professional school to educate teachers, which culminated in the establishment of a private normal school—the North Missouri Normal School and Commercial College—at Kirksville in 1867. This College, on March 19, 1870, became a state school—the First District Normal School. Although it had long been a teachers college in reality, it was not legally recognized as such until May 20, 1919,

when it was re-christened the Northeast Missouri State Teachers College. From its inception its philosophy and program were those of a teachers college. During its eighty years of devotion to teacher education it has maintained a program consistent with the needs of the public schools.

To meet the needs of the public schools of tomorrow teacher education institutions must face a reorganization of their educational programs. This Teachers College believes this reorganization is imperative if it is to continue to educate teachers for the elementary and secondary schools of Missouri. The present four-year program for educating teachers is as inadequate as the three-year program was a quarter of a century ago. The outline of the reorganization of this Teachers College was officially announced in the general bulletin published April, 1938, which pointed out that we should look forward to a pro-

gram of two years of general education, or pre-professional education, followed by three years of professional education if teachers are to be adequately educated for their professional task. It also asserted our belief that the two years of general education followed by three years of professional education, including the graduate work, should be integrated into a unified program of teacher education. Since that announcement more than eight years have passed and our new model is not yet completed. The delay has largely been due to the exigencies of war. In the meantime, the faculty has been diligently working on the graduate program with the view of having it ready to implement at the close of the war.

On May 18, 1943, the President of the College presented the problem of graduate work to the Faculty Council. After a thorough discussion, he appointed a committee to take the lead in formulating a plan for the proposed year of graduate work. This committee was appointed on May 26, 1943 and on June 11, 1943, held its first meeting for the purpose of organizing and formulating its objectives. Its membership was composed of Dean L. A. Eubank, Chairman; Mr. Tom Angus, Mr. J. L. Biggerstaff, Dr. John W. Hollenbach, Dr. C. W. Martin, Dr. P. O. Selby and Miss Lucy Simmons.



THE JOHN R. KIRK MEMORIAL AT KIRKSVILLE

On April 1, 1945, the committee made its report to the President of the College recommending that work be launched at the earliest date possible. The war was still on, so the launching of graduate work had to wait until peace came.

The next important step was on March 25, 1946, when the Board of Review of the North Central Association of Colleges and Secondary Schools approved the College for offering graduate work by stating "that the institution had sufficient strength in faculty, library, and finance to warrant a program of instruction leading to a Master's degree."

The final step was taken when the Board of Regents at its meeting May 17, 1946, unanimously passed a resolution authorizing the faculty to offer work leading to a Master's degree and asked the President of the College to set the time when the program of graduate work should be launched. The date set is May 26, 1947. The graduate work will be under the general supervision of a graduate council composed of the following members of the faculty: Dean L. A. Eubank, Chairman; Dr. P. O. Selby, Dr. C. W. Martin, Dr. Vera Fawcett, Dr. Homer Knight, Mr. J. T. Angus, and Miss Lucy Simmons.

The fundamental purpose of the program of graduate work is to meet the needs and demands of the public schools of Missouri for scholarly teachers, efficient school administrators, and effective supervisors. It simply means we are alert to the needs and demands of the times for properly educated men and women for the teaching profession. We hope to give "a thorough scholastic training" interspersed with sufficient professional preparation for the important task of teaching. Therefore, we have organized our teacher education program with the view of giving the prospective teacher a breadth and depth to his educational experiences. During the two years of general education the prospective teacher secures breadth of understanding, but in the three years of professional education he should attain depth of understanding in an academic or applied field in which he has special interest. The graduate or fifth-year courses are organized with the view of giving the student a deeper understanding of human society, a grasp of the great laws controlling the universe, and an appreciation of the spiritual experiences and emotions of the human race as revealed in his academic or applied field of major interest. Graduate courses are the

# MURRAY CASE SELLS

by

Lundy O. Allen

Murray Case Sells, oil operator-sportsman-philosopher and founder of the Sells Petroleum Incorporated which he heads as its president and general manager, was born in Northeast Missouri, at Queen City, the son of a farmer and stock raiser. Here on his father's farm he spent the early years of his life. Accepting responsibility at the early age of thirteen he was "straw boss" on his father's farm for several years. Among his boyhood associates was the late Glenn Frank and his brothers, who, during the summer months, worked on the Sells farm. In 1943 Sells purchased the farm where he was born and spent his early manhood.

He graduated from the Queen City High School in 1901 and later attended the Normal School in Kirksville, Mo., (now the Northeast Missouri State Teachers College) during the 1902-1903 term. After teaching school in Missouri for a while he moved to Muskogee, Okla., the heart of the Old Indian Territory, where he was football coach for Bacone College, a school for Indians located near the city of Muskogee.

In the years following he held positions with the Deming Investment

capsheaf to the education of a teacher.

Courses of graduate standing have been organized to meet the needs of two classes of students: *First*, those who desire to qualify for the degree of Master of Arts; and, *second*, those having a Bachelor's degree and desiring to supplement their education with advanced work without qualifying for the Master's degree. To meet the demands of these two groups of students next summer we will offer work on the graduate level in music, history, business education, elementary education, and school administration. Graduate courses in other fields will be organized and offered in the near future, depending upon the needs of the public schools and the facilities of the Teachers College.

The Northeast Missouri State Teachers College takes this forward step with confidence, believing that the future of America lies within better public schools taught by better prepared teachers.



MURRAY CASE SELLS

Company, Indian Office of the Department of Interior, Commercial National Bank, Muskogee, Okla., as stenographer and note teller, Treasurer of the City of Muskogee and was later cashier of the Guaranty State Bank of Muskogee which he helped Murray Haskell, son of Charles N. Haskell, first governor of Oklahoma, organize in 1911.

In 1913 Sells started large scale farming in the Muskogee area having some 1,600 acres of bottom land under cultivation. Farming on this scale occupied the major portion of his time until 1920. As early as 1917 he had become interested in the oil business and had started buying royalties and a few oil and gas leases. As the years passed more and more of his time was devoted to oil interests until in 1920 he was devoting full time to this new and fascinating business. As early as 1919 he had some production in western part of Muskogee County, Okla. During the ten year period from 1920 to 1930 he continued to expand his oil interests and drilled many wells some of which prove to be quite productive.

Among his many activities Sells found time to be an active member of the National Guard and when the

United States entered World War I he volunteered for service, was duly inducted, and served as an enlisted man until discharged. Coming back to the National Guard he served as Color Sergeant, but was soon promoted to rank of Captain. This rank he held until 1923 at which time he resigned his commission because of the pressure of business.

In July, 1929 Sells Petroleum Incorporated, the company Sells heads, was organized by him under the laws of the State of Oklahoma with permit to do business in the States of Texas, Louisiana, Kansas, Mississippi and Missouri for the purposes incident to the oil and gas business in general. Today, however, the company owns property and does business in fourteen states through its offices maintained in Gladewater, Tex., located on the Northwest edge of the East Texas oil pool.

Because of the importance of his oil interests there, Sells moved to East Texas in 1930 just at the time of the discovery of the great East Texas oil field. He had advocated the possibilities of the enormously wealthy area for one and a half years before the major oil companies would give it any con-

sideration and would very likely have drilled the "discovery" well in this great pool had it not been for the illness of his mother at the time.

His valuable interests in the "East Texas" pool are located on what is called the "east rim" of the field. Besides having an active part in the development of this field, he pioneered a small pool four miles west of Evansville, Ind., and the wealthy pool not fully developed, as yet, at New Harmony, Ind.

John Brown University, Siloam Springs, Ark., in May, 1942 awarded him the honorary degree of Doctor of Science, because of his prominence in the oil industry and his interest, generosity and support of the work of the university. Not only has Sells been generous in the support of educational institutions but has for many years maintained Student Loan Funds at Northeast Missouri State Teachers College, Oklahoma City University, Bacone College, Muskogee, Oklahoma and John Brown University. Hundreds of students, including the writer of this article, have been benefited by these educational funds and other loans made directly to students for educational purposes. Of all of his many

#### THE AUTHOR

*Lundy O. Allen, a native of Oklahoma, graduated from the Northeast Missouri State Teachers College in 1942, and is now a student in the University of Oklahoma.*

activities those dealing with educational funds and students are without doubt least known.

Sells' business and interest in show horses brings him in contact with hundreds of people and as a result he has a wide circle of friends in many states. He has a profound interest in the love for people, always has time to talk with a friend, and nothing pleases him more than to meet and talk with one of his boyhood associates.

Being somewhat active in politics, Sells is a long time member of the Republican State Executive Committee and has been a Texas Delegate to the National Republican Convention several times. At their state convention, August, 1946, the Republican Party nominated him for the United States Senate to oppose the veteran senator, Tom Connally.

While he has always been interested in a number of sports during his career including football, baseball, fishing and hunting, Sells' greatest interest and hence success along sporting lines has been with his American Saddle Bred Horses. He started buying a few horses in 1933 and started showing them the following year. He now has a sizable stable of pure bred, including three-gated, five-gated, fine harness and roadster horses. For much of the past twelve years he displayed his horses throughout the United States, but in the last few years has limited his exhibitions to shows in the Southwest. He raises, trains, shows and trades most of his own horses. The results of his ability as trainer and showman can be seen and read about in almost any of the publications devoted to fine show horses, or by taking a look at his collection of blue ribbons and trophies won at horse shows throughout the nation.

So goes the story of a native of Northeast Missouri. Such accomplishments are the results of intelligence, wisely used, plus a great deal of hard work. In his business dealings, Mr. Sells, is to be admired for his honesty and fairness and a man of whom Northeast Missouri can justifiably be proud.



MR. SELLS IS AN ENTHUSIASTIC HORSEMAN

# A BRIEF HISTORY OF THE VIOLETTE MUSEUM

by

Homer L. Knight

Located on the campus of the Northeast Missouri State Teachers College in the beautiful John R. Kirk Memorial is the Violette Museum, which is rapidly becoming one of the foremost museums in Northeast Missouri. This museum is a tribute to the foresight and advanced educational thinking of Mr. Eugene M. Violette, Professor of History in the Kirksville State Normal School from 1900 to 1923. When Mr. Violette came to the Normal School campus he readily understood the value of visual education in explaining the development of mankind, and began collecting relics to illustrate class projects. Within a short time he organized the material for the purpose of founding a museum. By 1911 the project had been under way several years; evidently sponsored by the Historical Society for Mr. Violette reported in a history of the Society, that the museum had been organized several years previously and cases had been constructed by the Manual Training Department to care for the relics already donated. He also reported: "Little has been done lately in adding to the collection, but it is hoped to continue the work later and make it really worthwhile."

In 1913 the Division of History and Government undertook to improve the museum in order that it might be used in classes of history throughout the school, including the practice school. "... in exemplifying the manners and customs of the peoples of the past." The new sponsors began an intensive campaign to obtain items necessary to develop their progress. The need for additional materials was publicized by printing in the college paper and on handbills lists of the items wanted. The circulars also pointed out the dangers of permitting valuable old relics to remain in places where they might be destroyed.

The campaign was successful and the Division decided to house the collection in a room constructed by partitioning off the west end of room 20-B, old Baldwin Hall. The new organization was further aided by the purchase of six cases of "good oak material," at a public auction held for the disposal of the equipment of the Bles Military Academy, a defunct school of Macon, Mo. By the end of December, 1913, the reorganization was complete and the "Historical Museum" became widely known as "Mr. Violette's Collection in 20-B."

In 1914 the number of gifts and loans to the museum increased very rapidly; some came from persons interested in the Normal School and many from Mr. Violette, who was traveling in Europe. One of the most prized additions was a twelve-piece Babylonian collection with temple records dating more than two thousand years before Christ.

Between 1914 and 1917, school publications and letters attest to the success and rapid growth of the museum project. When the United States entered World War I, Mr. Violette, while not neglecting other relics, made a special effort to obtain gifts from service men. The constant addition of new items overflowed the original room in which the museum was housed and pieces were placed in various corridors of Baldwin Hall. Dr. Violette left the campus at the end of the spring quarter, 1925 and Dr. J. L. Kingsbury assumed direction of the museum. Upon the completion of Kirk Auditorium the collection was moved there and wide publicity was given through Northeast Missouri which emphasized the fireproof structure as well as the precautions taken against theft. The move to the new quarters was completed and the event was celebrated on January 22, 1924; six days before Baldwin Hall was destroyed by fire.

Dr. Kingsbury faced several serious problems not the least of which was the urgent need for class rooms; therefore his program tended to concentrate upon proper displays rather than expansion. When Pickler Memorial Library was completed the collection was moved into a large room on the northwest corner of the second floor of that building. About the same time Dr. Kingsbury left the campus to accept a position with the teachers college at Denton, Tex. Overcrowded conditions on the campus finally forced the museum to partially disband, and most of the material was stored in a basement room of the Library Building. Miss Lucy Simmons and Dr. Walter H. Ryle were placed in charge of the displays and their storage.

Interest was not lost in the project however, and when Dr. Ryle became President of the Teachers College he

took steps to reorganize the museum. On April 23, 1940, a resolution by the Board of Regents of the College officially named the collection the *Violette Museum*. Miss Ethel Hook was made Director and Dr. V. Don Hudson, Curator of the Museum and on June 4, 1942, it was reopened with appropriate ceremonies in conjunction with the dedication of the Violette-McClure Missouriana Collection. The stored materials were moved to Kirk Memorial, new cases were purchased and Dr. Hudson began the work of enlarging the collection as well as arranging the displays in a suitable manner. Dr. F. D. Hewitt became Curator when Dr. Hudson left the campus and continued the work until called into military service. For several months during World War II little effort was made to expand the collection. In September, 1945, Dr. Homer L. Knight was made Curator.

For approximately forty years the Violette collection has grown and has been developed toward the original intentions of its founder; that of aiding students of Northeast Missouri to grasp more readily and thoroughly our heritage from the past. The present museum contains more than two thousand cataloged items. Recently a large number of pioneer relics have been donated by various citizens of Northeast Missouri and veterans of World War II have brought many souvenirs and collections to the museum.

## RECREATIONAL LEADERSHIP

Offered for the first time in the State of Missouri is a course in Recreational Leadership at the Teachers College which has been especially designed to meet the increasing demand for qualified leaders of recreational programs in community projects, industrial plants, and educational activities.

Mr. Delbert E. Maddox, Assistant Professor in Health and Physical Education, has organized the program so that those students who wish may secure a B.S. degree with a major in Recreational Leadership. Considerable interest is being shown in this program by Boy Scout officials as well as many others, who foresee a source of professionally trained leaders in the recreational field.

Included in the course are the following subjects: Nature Study, Physical Education in the Elementary School, Community Drama, Leadership in Recreational Activities.

## —A. P. GREEN FIRE BRICK COMPANY

(Continued from Page 6)

What is the secret of making a finished brick from a raw clay? To give you the complete story would take pages and pages; however, briefly, the process is this. Clay, in its raw state, is ground into very small sizes. Perhaps it is ground to the size of a sand grain, or perhaps even down to a powder form. After it is ground, it is mixed with other clays. The A. P. Green Company works with over 100 basic clays, and blends them to exact laboratory formulae to assure the highest quality of finished brick.

These blends, or mixes, are then made into brick. Several ways are used, according to the size and shape wanted. The first of these is the wood mould. Here the "mixes" with the proper amount of moisture added are handled by men who use a special mould and make each brick individually. You might wonder why, in this modern age of machinery, brick are still made by hand. To understand the reason, you would have to see some of the complicated shapes made by these men.

If you think fire brick is all made in the standard shape of a building brick, you are mistaken. Fire brick is made at the A. P. Green Company in all sizes, shapes, and forms. There are round brick, square brick, fat brick and thin brick, zigzag brick, spool brick, and many hundreds of shapes, all built to perform some particular job.

Another method of making brick is the extrusion, or stiff mud process. The mixed clay is forced through a form with a hole in the middle of the shape desired. The clay comes out this hole in a continuous cake, and is cut off to the desired length and then repressed to the exact shape wanted.

A third method of manufacture is the air hammer method. Here, large steel forms are filled with the mix and men with air hammers pack it securely. The forms are built so that they come apart easily to remove the finished brick, and then go together again for a repeat process.

The dry press method of manufacturing fire brick is the most widely used, and produces the majority of the brick. Huge hydraulic presses stamp out the finished brick under a terrific pressure. Because of this pressure, less moisture is used in mixing the clays. Rows of these dry presses line one section of the A. P. Green plant at Mexico

and stamp out millions of bricks on a continuous, 24-hours a day schedule.

Now that we have the brick made, what happens? The clay is still in raw form, although it has been scientifically ground, blended, and mixed as desired. The next step is that of "burning" or "firing" the brick.

Two types of kilns are used for this process. The first of these types is a round bee-hive shaped kiln called a periodic or down-draft kiln. In this type, the raw brick are stacked inside an unheated kiln, the door is bricked up and sealed, and the heat turned on. Fired by gas jets capable of producing extremely high temperatures, the brick are gradually brought to whatever temperature is desired, held there for a scientifically designated period of time, and then allowed to cool. The door is torn down, and when the brick have cooled sufficiently for handling, they are removed and stored for shipment.

The second type of kiln is the "tunnel" type. Here the process is somewhat different. The kilns themselves resemble long ovens with doors at each end. At the A. P. Green plant the kilns are over 400 feet long. The green brick, stacked on specially built cars, are placed in one end of the kiln, and move through it gradually by being pushed by more cars which are added behind it at carefully calculated time intervals.

Since the heat is applied at the center of the kiln, the brick gradually is brought to a high temperature while progressing slowly toward the high heat areas. The brick remain in this area of terrific heat for a predetermined length of time and then cool gradually as they continue their journey toward the other end of the kiln. If they have not cooled sufficiently for rapid handling by the time they reach the end of the kiln, they are force cooled by a large electric fan which uses a regulation airplane propeller. In this type of kiln, the center portion of the kiln is heated continuously, and is only cooled in case it is necessary to make repairs.

From here the brick are moved to large storage sheds to await shipment. In the past few years most of this moving has been done by lift-trucks. However, special shapes and small quantities of brick are still handled by a "wheeler." These men are experts at balancing large quantities of brick on a wheelbarrow, which is constructed so that if the brick is piled properly the wheeler is not required to carry the weight of the load but raises it to a balanced position and then merely pushes it along. In fact, some of the

wheelers are good enough that they can tilt the load forward to a point where they almost ride on the handles of the wheelbarrow. They receive pay in proportion to the number of brick they move, and proceed at a very rapid pace through the storage areas.

A plant the size of the A. P. Green Fire Brick Company becomes almost a complete community, and must provide many facilities for its employees. Eating becomes a major problem, and the A. P. Green Company has met that problem by providing a cafeteria for its employees. The cafeteria is operated by Crotty Brothers of Boston, the world's largest operators of industrial cafeterias.

Recreation is perhaps not a problem, but this progressive company has provided facilities so that their employees may enjoy themselves in many ways. For example, fishing permits are issued to Teal Lake, a former clay pit, which has filled with water and has been stocked with fish. In another pit, partially filled with water, swimming facilities are installed during the summer months and a life guard hired. Employees are permitted to bring guests to this pool, which is the only one in Mexico.

Tennis courts are provided on the company grounds for employees and their guests. This year these courts were the scene of the city tennis championships. Softball is a major sport at the company and this year a company-sponsored team played thirty-nine games, winning thirty-three and losing six. They were the District Softball Champions and participated in the State Tournament at Springfield, where they lost to the team which won the State Tournament.

An employees' club, known as the Empire Club, is active in promoting recreational activities, and boasts a club house and softball diamond on some of the company property.

This season a company bowling league has gotten under way with six teams from the plant and office competing against each other for prizes offered by the company.

And so, here is the A. P. Green Fire Brick Company of today. With the perfect combination of natural advantage, scientific production, and efficient organization, the company has plenty of reason for its present leadership in the fire brick industry. The same combination, powered by the forces that A. P. Green, himself, set up years ago, will go on to new achievements, new standards, and a higher place in the future.

