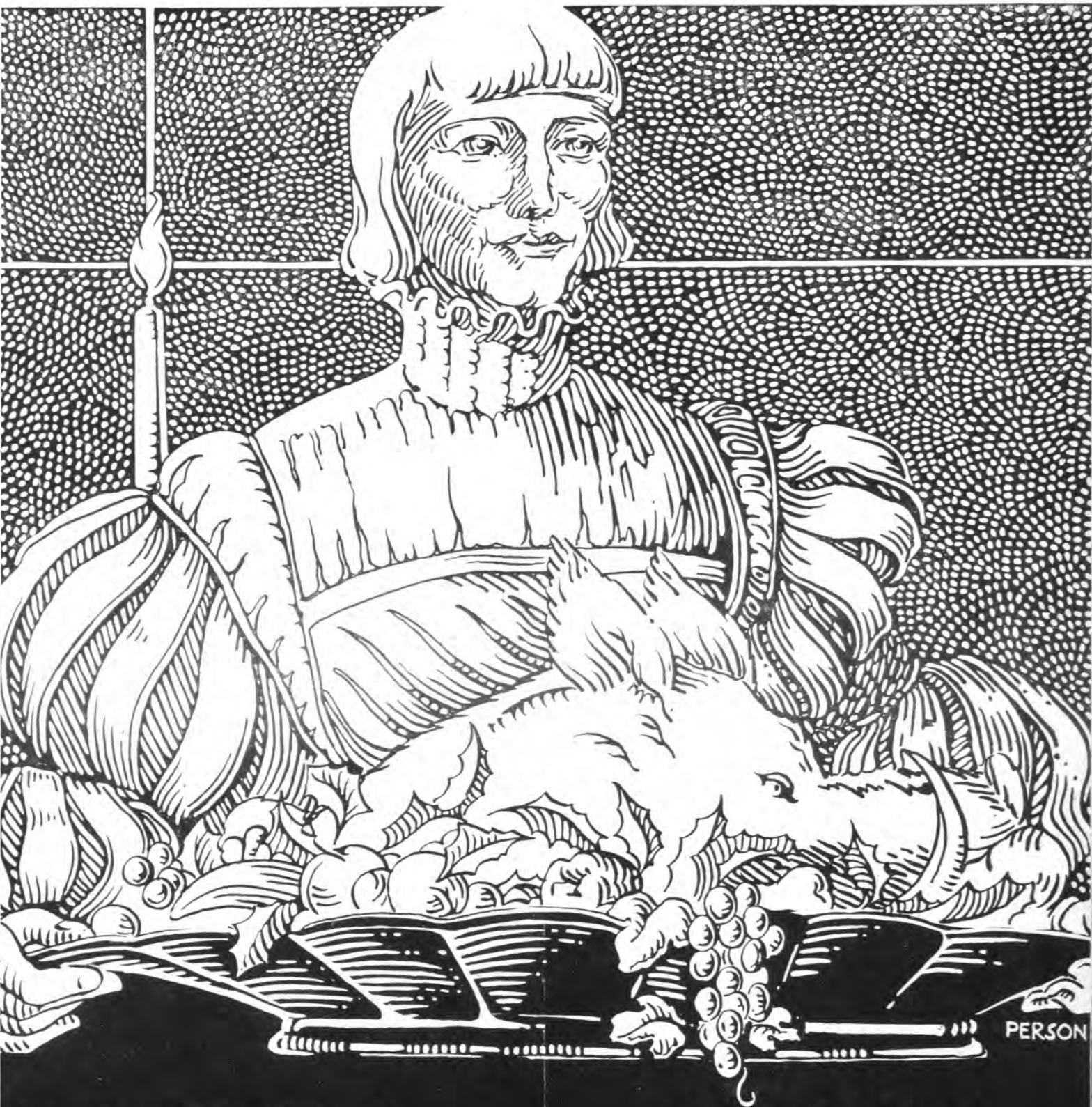
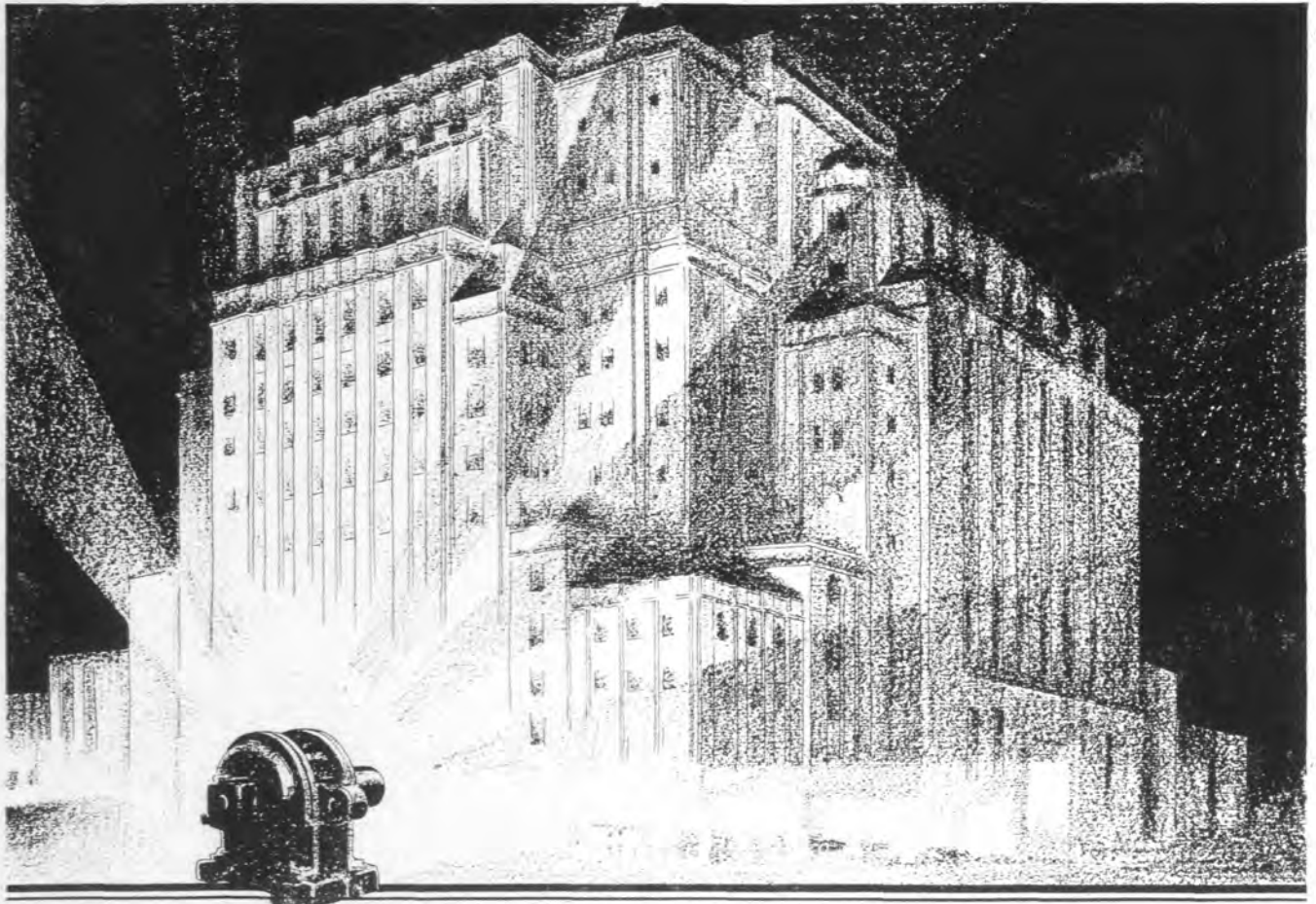


59
michigan state college
RECORD



NOEL

DECEMBER
1930



How the new Strawbridge and Clothier Store in Philadelphia will look in 1931. The first department-store building of set-back design in America—Electrically equipped throughout by General Electric. Turner Construction Company, General Contractor. Woodfield-Thompson Company, Electrical Contractors. Simon & Simon, Architects.

BONES OF STEEL NERVES OF ELECTRICITY

THE MODERN skyscraper eats electricity and breathes power. Its bones are of steel . . . its arteries and nerves are electric wires. Its heart is the substation below the street level, through which flows electric power to light and ventilate its acres of floor space, to lift its swift, silent elevators, and to paint its soaring contours with floodlights.

Although the electric equipment is but a small part of the cost of a building, it is one of the architect's

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JOIN US IN THE GENERAL ELECTRIC PROGRAM, BROADCAST EVERY SATURDAY EVENING ON A NATION-WIDE N.B.C. NETWORK

GENERAL  ELECTRIC

95-787H

Listening In



AT this season of the year it is well that we pause and remember Alma Mater. Throughout the whole round year hope becomes us, ambition exhorts us or perhaps dire necessity prods us to quicker pace and higher climb.

But when the Yuletide season comes and thoughts of self and personal gain give way to sentiments that do express our very selves, and we are prone to think of those we love and those to whom we owe a debt that only gratitude can recompense—let us remember then, and remember gratefully, that Mater from whose breast was nurtured what is best in us.

The officers of your M. S. C. Association ask that you join them in letting our Christmas gift to her be that most precious thing cherished in a mother-heart, the love of grateful children manifest just anyhow—but somehow manifest.

WHILE the football curtain has dropped for 1930 and Coach Jimmy Crowley's scrapping Spartans are being crammed almost daily (banquets, not brain food for exams), we cannot miss an opportunity to express in behalf of the entire alumni family our sincere congratulations for the season, just gloriously passed. Early in the season, with Michigan, Colgate, North Dakota, Georgetown and the University of Detroit starring the squad in the face, many followers of the Green and White pondered and even shrugged their shoulders.

Despite a goodly return of veterans, the loss of Captain Harold Smead and several other less publicized but stalwart squad members, was substantial. The vigor and effectiveness with which the revamped 1930 State team plunged into the season has been a glorious reflection on the members of the team, on the coaching staff and on a College which can inspire men so much. Five victories, two scoreless ties and one defeat—the best season since 1915. The Record is pleased to offer its congratulations.

OUR prediction that the Record would be a better read magazine and carry a greater reader appeal if we had more personals in our columns, has been vindicated.

"Saw so many names and news about old classmates I want to be sure to get every issue," a former student writes in sending in her change of address.

"I always look over the notes of my class, then read 'Close Beside the Winding Cedar,'" writes another Spartan.

"I haven't much to tell about but perhaps my old friends of college days would even read with interest the fact

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GLEN O. STEWART, '17, Editor GLADYS FRANKS, w'27, Alumni Recorder

THE M. S. C. ASSOCIATION

Union Memorial Building

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that I have a new job and like my work immensely," another grad stated as he dropped into the alumni office after the U. of D. football game.

Let us hear from you if it is only to record some activity, promotion, change of occupation or news of interest about some former Spartan student. The Record should be like a letter from home to many who are at distant points.

THE M. S. C. glee club is again under the direction of Fred Killeen this year. Plans are being made for the boys to give a concert for the inmates of Jackson prison January 1. A trip to the

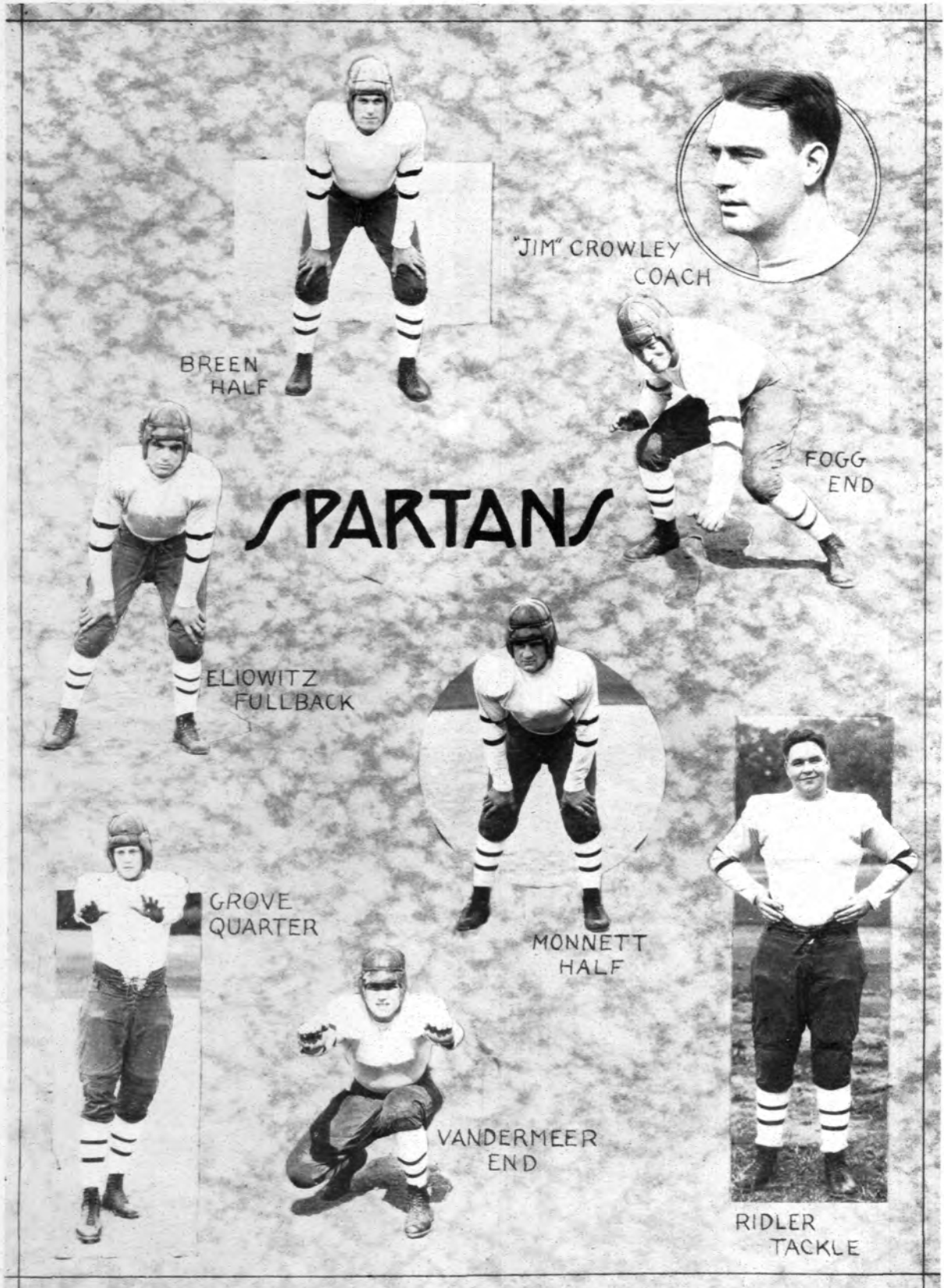
northern part of the state is planned for the spring vacation.

FOR the eighth consecutive year the 65-foot spruce tree in front of the Woman's building was formally lighted on December 15. Nearly 500 colorful lights, in hit and miss fashion, make the Campus Christmas tree one of the finest in the country.

IN spite of everything, such is the fortitude, the charity and the general altruism of this little magazine and its editor that we still manage to wring out a Merry Christmas.

More than that—Happy New Year.

These Men Were Tough On All Opponents



CLEAN, hard, sportsmanship playing, a heavy, driving attack, and a stubborn wall were features of the 1930 Spartan aggregation. Among the above players Crowley will lose Grove, Fogg, Breen and Ridler, while Monnett, Eliowitz and Vandermeer will see more action next fall.

Spartans Look Back on Successful Year

Jimmy Crowley and Assistants Overcome Many Obstacles

MICHIGAN STATE'S most successful football season in 15 years is still the talk of the Campus. Spartan students who were busy with their preparations for term examinations following the last game of the season, that with University of Detroit, found the discussion of the team's conquests a favorite topic. Nothing that has happened in athletic achievement here in many, many years has been viewed with such genuine satisfaction as the accomplishments of Coach Jimmy Crowley's team.

In a way, there was something new about State's 1930 edition of football. The team had that dash and fire that has been missing in the elevens that have been playing in recent years along the banks of the Red Cedar. Coach Crowley's team did exactly those things to opponents that rivals have been heaping on the Spartan's heads in previous seasons. They sparkled even in the one defeat they suffered to Georgetown by a one-point margin. The team was universally recognized as something to be proud of, one that was worth the heartiest cheers, one that could be talked about in any circle of football gossip and worthy of ranking beside those teams some of the oldsters remember as playing and beating major opponents down on old College field 15 years ago.

Coaching Combination Praised

Not only were the followers extremely pleased with the results of the games and the way the squad conducted itself at all times, but the fact that a virtually new coaching combination had produced the desired results in two years. Coach Crowley commands the respect and admiration of everyone on the Campus. His personality, his ability to teach college men in a fashion that would meet the demands of the most critical and his standing with the faculty and business leaders of the community makes him a respected figure. Michigan State has fallen for Jimmy Crowley—and fallen hard.

Not only was the head of the staff tendered compliments for his work this fall, but his two assistants, Miles W. (Mike) Casteel, backfield coach, and Glen (Judge) Carberry, line coach, were also given a generous share of praise. The three men work together as a unit. They are admirably suited

to each other in every way. Carberry built a line that ranks as one of the best ever to wear the Green and White. Casteel was particularly useful in constructing a forward pass defense, a

finest linemen ever to play here, was eliminated. He suffered motorcycle injuries that eventually resulted in the amputation of one leg and the maiming for life of one arm. As he had been the heart of the line for two years, Coach Crowley was stumped when he was forced to find a new center. He did not have a single promising prospect in view when news of Smead's injuries came to him. After consulting his assistants, Crowley sent a football to Francis (Bub) Meiers, a Muskegon youth who had played quarterback on the freshman team the year previous, and told him to prepare to play center. The choice was a happy one. It is doubtful if Crowley could have made a better selection. The blonde sophomore, weighing only 173 pounds, outplayed every opponent he met throughout the season. His figure was ever standing out in State's games. Having been a backfield man during all his playing days, the secondary defensive work was not difficult to master but he had to learn how to pass the ball, do offensive charging and learn other important details. Meiers was the heart and soul of the line, a veritable Smead in action.

Front Line a Stone Wall

This stroke was the first of many effective ones. Ralph Brunette, a sophomore, was picked out for one tackle and Don Ridler, a veteran was given the other one. Vandermeer, another sophomore, developed so rapidly under Carberry that he played alternately with Fase, a veteran. Fogg, a two-year letter man, became one of the best defensive ends State ever saw. The guards were intrusted to Claude Streb and Captain-elect Milton Gross. There was really just one reserve lineman, outside of the Fase and Vandermeer combination, that could take his place in the front line without perceptibly weakening it. This player was George Handy. It meant that the line had to play every minute of every big game, a real assignment.

Loss of Carl Nordberg, veteran halfback figured on as the sparkplug of the ball carrying quartet, was another big blow. He played in only three games. Then Abe Eliowitz, the promising sophomore fullback, was eliminated through the hard stretch of the schedule. Injuries kept him idle. Gerald Breen, another senior halfback, was



COACH JAMES CROWLEY

department in which Michigan State has been lamentably weak for many years, that turned aside all thrusts. He also did all the scouting of opponents and Coach Crowley has complimented his assistant on making accurate and complete reports that had much to do with the Spartans' success.

Injuries Perplex Coaches

There was anything but smooth sailing ahead when the coaches assembled their talent on September 10 for the first practice. One blow had already been struck and many others were to follow. Injuries played a big part in making the backfield situation a perplexing one in every game save the first encounter with Alma. There never was a single game during the balance of the season when Coach Crowley could call upon the combination of talent he believed to be the strongest.

The first setback was suffered when Captain Harold Smead, one of the

inactive through most of the major contests although he played a superb game against Michigan. Nordberg starred against Colgate. It was ability to jockey his backfield men around in the pinches that branded Crowley as a strategist. Iron men of the ball carriers were Roger Grove, quarterback, and Bob Monnett, sophomore halfback. Development of Joe Kowatch, sophomore reserve fullback, into a regular was another important move made by Crowley. In the final game against Detroit in the last few minutes of play Crowley had a complete sophomore backfield on the field. And they went places.

Crowley Credits Hard Blocking and Tackling

The foregoing gives the reader some idea of the handicaps that were surmounted in building a winning team. With fortune giving him at least an even break, followers of the team believe that Crowley will never have a losing eleven. They say he will be able to face any opponent and leave the field after having made a good showing. His teams are smart, they play hard football, enjoy the game and want to win. Crowley, in a speech before Lansing business men, declared that a big share of the credit for the season can be attributed to the hard tackling and blocking.

"I never saw a harder tackling team than the one we had this fall," Crowley declared. "The secret of our success is found right there."

Before the season was completed, East Lansing and Lansing townspeople were preparing to honor the team and its coaches. Monday night following the Detroit game on Saturday, a banquet was laid in the Hotel Downey. The event was not advertised at all. Everybody just heard about it and attended. It was a real demonstration of the place that the team and its coach occupied in the feelings of the community. Crowley appeared as the principal speaker before the faculty club after the Georgetown game. He is universally well liked.

Sophomores Become Veterans

One of the pleasing features of the game, at least to those who look farther along the Spartans' football trail, was the development of a large number of sophomores who now rate as veterans. Meiers, Brunette, and Vandermeer constituted the new material that was woven into the line while the backfield was dominated largely by sophomores. And, without exception, all of these players performed on a plane with others who had served one and, in most instances, two years on the first team. The manner with which this winning unit was knitted out of veterans and sophomores provided unmistakable evidence that nothing short of a genius was at the helm.

The season returned five victories,

A Spartan Record 1930

State 28; Alma 0
State 0; Michigan 0
State 32; Cincinnati 0
State 14; Colgate 7
State 45; Case 0
State 13; Georgetown 14
State 19; North Dakota State 11
State 0; Detroit 0.

two scoreless ties and one defeat. Major triumphs were scored over Colgate and North Dakota State, while Case, Cincinnati university and Alma college were among the smaller teams to be subdued without difficulty. The scoreless decisions were reached with Michigan, co-holder of the western conference football championship and conqueror of Harvard, and the University of Detroit, a thorn in the side of Spartan football for the past four years. Looming over all, however, was the brilliant, honestly earned victory over Colgate university, 14 to 7. Colgate previous to this game and through the balance of the schedule flattened every opponent it met by decisive scores. Grantland Rice, nationally known critic, sometime ago was mistaken when he excused Colgate's reverse by saying that the Maroons fumbled away two or three touchdowns inside State's five-yard line. Colgate was inside the Spartans' 20-yard line just once during the game and on this occasion scored their lone touchdown. Colgate fumbled, right enough, but in their own territory and with a little more punch the Spartans might have had two touchdowns. This victory came as a present to the homecoming alumni.

Review of Season

Alma put up a spirited fight against State in the opener, finally yielding by a score of 28 to 0. At Michigan, many penalties that were assessed because of the inexperience and over-anxious State team, served to keep State from making a single threat at scoring. The Spartans were so busy all afternoon defending their own goal line against Michigan thrusts and forward passes that they had little time to look to their own attack. This strong defense, dismissed as something of a miracle at such an early stage in the season, later developed to be a true representation of what the team could do in turning back opponents. The point of this game was that Michigan was definitely foiled by a team that was just beginning to form.

In the third game Cincinnati was humbled by a 32 to 0 score. It was State all the way. No minor opponent ever had a chance. Came the Colgate game and its cheering result. Case School of Applied Science next felt the

power of the Spartan team falling by a score of 45 to 0. Case believed that it had its best team in many years. Then followed the trip to Washington to play Georgetown university.

Washington Trip Only Defeat

The outcome of this game was the single disappointment of the entire season. The trip was something of a lark, a special train being chartered for the trip. A hundred followers, the college band, officials and students made the jaunt. The team and band took part in various ceremonies at Washington. Meeting of President Hoover and paying tribute to the Unknown Soldier were among the items on the program. These functions, together with the fact that the game was played at night, may have served to detract the players attention from their football the night of the game. At least they found themselves behind 14 to 0 after the first kick-off of the second half. They threatened Georgetown's goal line several times in the first half but could not punch across a score. Then the opponents made two long runs, one of 57 yards and another of 92 yards, for quick touchdowns. Not once did the enemy find it possible to work the ball into a threatening position. State out-played the Hilltoppers in everything but the final score. What pleased Coach Crowley most, however, was the way his team came back and scored two touchdowns after they were behind 14 points. A missed point after touchdown was all that kept them from gaining a tie score.

"I knew my boys had to let down in some of these games," Coach Crowley said, "but I didn't know when it was coming. Now that it is over we will go on and play some football."

After the game he went to the locker room. He did not have a word of criticism to offer for his team's defeat. He congratulated several of the men, consoled them and laid a foundation for esteem in their hearts that will never be forgotten by his players.

The team was still suffering from the temporary slump in the North Dakota State game played at East Lansing which State won by a score of 19 to 11. North Dakota had a lead of 11 to 6 at one stage but Bob Monnett, the hero of the Colgate game, turned in a 65-yard sprint for a touchdown, and George Handy blocked a punt for another score in a rather wierd exhibition of football.

Detroit Game Satisfactory

The team was steamed up for the Detroit game. There were four seniors in the starting lineup and they wanted a victory. The outcome, in view of the way State out-played the Titans, was disappointing to many fans. Detroit never had a scoring opportunity while State five times was on the verge of

(Continued on page 14)

Who's Who Among the Alumni



Fred Pitt Alderman, '27, M. E., was a member of the relay team which won the relay and established a new world's record of 3:14 1-5 seconds. He is an alumnus that will long be remembered by the younger alumni. He was not altogether unknown before leaving this institution, for he was holder of many track records and championships, among them being the following: Co-holder of the world's indoor record at 300 yards, 31.2; national collegiate champion at 100 yards, 9.9, and 220 yards, 21.1, in 1927; I. C. A. A. A. A. champion at 440 yards, 48.3, in 1927; member of Michigan State's All-American 400 and 880 yard relay teams for 1927; and picked as number one man by the National Collegiate Athletic association for their college honor roll in 100 and 220 yard sprints. He was a member of Sigma Alpha Epsilon, Varsity Club and Tau Beta Pi. At present he is with the Central Public Service corporation, at Atlanta, Georgia. (To the left)

Clarence Beaman Smith, '94, Ag., entered the service of the United States Department of Agriculture after receiving his M. S. degree at Michigan State in 1895. After more than 20 years in the promotion, supervision and administration of agricultural extension work Dr. Smith is today chief of the cooperative extension service. In the Experiment Station Record for August, 1930, it is pointed out that "extension work in agriculture and home economics in the United States is second in importance in rural development only to the establishment of agricultural colleges and experiment stations, enrolling over 5,700 Federal, State, and county employees, at an annual expenditure of over twenty-three million dollars, and influencing each year approximately three million farmers and farm homes to change for the better some practice of the past." Dr. Smith has written extensively on agricultural matters. (To the right)



Charles E. Ferris, '90, E., dean of the school of engineering at the University of Tennessee, furnishes concrete evidence as to the high places M. S. C. alumni occupy in educational fields. After a few years in the capacity of civil engineer, Mr. Ferris went to the University of Tennessee in 1890 as instructor in mechanical drawing. In 1900, he was made assistant professor and in 1904 he was raised to the professorship of mechanical engineering. He has been dean of the school since 1915. On October 24, 1930, the Board of Trustees of the University of Tennessee voted to name the new engineering building Ferris Hall in honor of Charles E. Ferris. Dean Ferris has published two books—Elements of Descriptive Geometry and Manual for Engineers. (To the left)

Diverse Salt Specifications Met by Chemist

Alumna Reveals That Research Is the Price of Progress

THERE is a silver thread of salt closely woven into the fabric of all human history. It is doubtful if any commodity has had a greater effect upon the history and civilization of the peoples of the earth. It values from ancient times is most clearly indicated, perhaps, by the prominence salt has occupied, not only in commerce but in religious and moral development.

Invariably salt was used in religious rites as a worthy offering, and every language has its common sayings concerning the welding of bonds of friendship through the eating of salt. Such a one is the Arab phrase, "There is salt between us."

Salt Production Basic Industry

Today in an age when modern science and mechanical methods bring within reach of even the humblest workmen many things for which kings of old would readily have gone to war, salt is still "between us"—an essential if inconspicuous bond that sooner or later

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By Dorothy Robinson Ross, 28²

Former Chemist of
Ruggles & Rademaker Co.
Manistee, Michigan

enters the preparation and consumption of practically all comestibles. Just as has been, and must be, a basic component of the diet of living creatures, so salt production always has been, and always must be, one of the world's truly basic industries.

The present processes that precede the appearance of salt in marketable form are by no means as simple as the age of the industry might lead one to believe. In the section of Michigan adjacent to Manistee, where the Ruggles and Rademaker salt plant is located, rock salt exists in great beds approximately 2,000 feet below the surface of the earth. These beds average about 30 feet in thickness. The so-called salt wells consist of large pipes or casings driven to a depth of about 1,500 feet, inside of which are pipes of smaller diameter which extend about

half way through the salt bed. The wells at this plant consist of a 14-inch casing driven down about 300 feet, then a 10-inch casing down 500 feet; inside of which is one of eight inches going down 600 feet; one of six inches going down 1,200 feet, and finally one four and one-half inches down 1,800 to 2,000 feet.

Each salt house is surmounted by a drill house which covers the pumping machinery. Water flowing down through the outside pipe filters naturally through the remaining earth to the salt bed. Here it dissolves the salt into a saturated solution of brine which is brought to the surface by compressed air pumps and flows into storage tanks.

About 150 gallons per minute of this brine, having an NaCl concentration of about 26 per cent will be produced by a salt well of the size given above. Of course, this production varies widely with the character of the deposit, but a rate of flow sufficient to give saturated brine is desirable. Eight such wells are now in operation at this plant, so that about 2,200 pounds of raw salt comes to the surface in dissolved form every day.

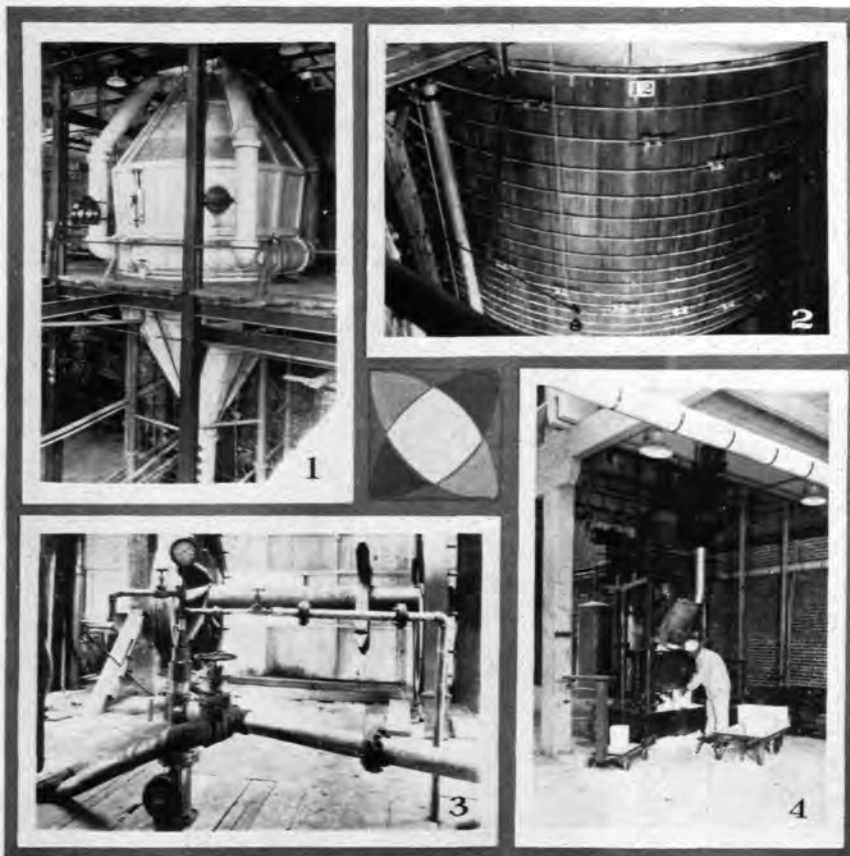
From the storage tanks, the brine is conducted into twelve cypress wood tanks, each holding 95,000 gallons of brine. Here the brine is allowed to settle a number of days and such impurities as calcium and magnesium sulphate drop to the bottom of the tank. The brine is then ready to be drawn off and sent to the evaporators.

Trade Demands Classification

There are two main classifications of salt, distinguished from each other by the form of the grain. The "open grainer," or Michigan, process produces the flake salt, whereas the vacuum-pan method produces the granulated salt.

Great, shallow, open vats, 120 feet long which hold 23,000 gallons of brine, comprise the chief equipment in the grainer process for making flake salt. Nineteen such grainers, each with a capacity of 625 gallons of brine per hour, are in continuous operation. Steam coils suspended in these vats heat the brine brought from the settling tanks to a temperature just below the boiling point. Thus, by slow evaporation, the water is released from the brine. This causes the salt to form in flaky grains at the surface and then settle to the bottom of the vat. Size of flake is governed solely by the temperature—the lower the temperature, the coarser the flake. A temperature of 195 degrees F. gives a product in which the flakes are of optimum size for most uses.

Many Mechanical Devices Used
All grainers in operation at this plant



SCENES at a modern salt factory. No. 1, a vacuum-pan evaporator with a capacity of 21,000 gallons of brine; No. 2, cypress settling tank with a capacity of 95,000 gallons; No. 3, the head of a salt well, which gives little indication of its importance in our civilization and No. 4, salt-lick blocks for cattle are formed at a pressure of 1,000 tons.

have mechanical rakes for the continuous removal of salt from the bottom of the grainer. The motion of the rakes is a reciprocating movement actuated by a hydraulic cylinder. At each forward or working stroke of the rake, salt is scraped along the bottom of the grainer for about eight feet. Each grainer has scrapers so placed that on each return or light stroke, the preceding scraper overlaps the extreme working stroke of the scraper behind, thus picking up the load of salt left on the last stroke and carrying it forward another stroke length for the next preceding scraper to catch.

The salt is slowly raked over an incline at the end of the grainer, where a large portion of the entrained brine is allowed to drop back into the grainer. This washes the salt flakes just removed from the brine. The salt falls over the incline to a belt conveyor running at the rate of 300 feet per minute. This conveyor carries the salt to the vacuum filters, where the first stage of drying takes place. The vacuum filters at the plant handles about 24,000 pounds per hour of the wet salt.

Salt made by the vacuum pan method has fine lustrous granules. Each evaporator or vacuum pan may be described as consisting of two cones whose bases are separated by an upright cylinder called a steam belt. The top and bottom faces of the cylinder or steam belt are flue sheets connected by 22,000 copper flues through which the brine can circulate. These pans weigh approximately 200 tons apiece and have a capacity of 21,000 gallons of brine each. There are five such pans at the plant.

Mechanical operation of the five vacuum pans is briefly as follows: Brine from the settling tanks is admitted to the evaporator; it passes through the heating element or steam belt, down the center well, and up through the tubes again by forced circulation. This operation is repeated until the brine absorbs sufficient heat from the heating element to liberate water in the form of vapor. The vapor leaves the brine to pass over and form the heating medium for another evaporator. The crystals of salt normally form in the most concentrated part of the liquid, which is at the top where the water is leaving as steam. When sufficient crystals have collected, they drop to the bottom of the pan into the boot, from which salt is continually removed.

Make Use of Latest Devices

The evaporators form a quadruple-effect system, the latest development in salt-making practice. Making use of the principle that a decrease in pressure above the brine lowers the boiling point, the steam arising from the brine in one evaporator is condensed in the steam chest of the next evaporator to heat and vaporize the lower-boiling (due to decreased pressure) brine contained therein. Exhaust steam from the electric generators used

in the steam chest of the first evaporator furnishes the only primary source of heat for the four evaporators.

In other words, in the quadruple effect, there are four transmissions of heat supplied in the steam. The steam enters the first body and is condensed, the latent heat thus liberated being transmitted to the brine on the other side of the tubes. This causes the formation of vapor, which in turn is transmitted by means of pipes to the second body, and it there acts as the heating medium. As in the first effect, the vapor is condensed and the latent heat is transmitted to the brine and vapor formed.

The concentrated mixture of salt and brine which is removed from the bottom of the pan is pumped to centrifugal dryers revolving at high speed. Eight such centrifugals are in use at the plant, capable of handling 1,000,000 pounds of salt. It is customary to run these dryers for five minutes on each batch of salt previous to the final drying operation. At the present time, the plant engineers are installing a vacuum filter to take the place of these centrifugals. A vacuum filter will wash as well as dry the salt coming directly from the pans.

Flake salt and granulated salt are given their final drying in the same manner after the flake salt comes from the vacuum filter and the granulated salt comes from the centrifugals. For some purposes, especially the bulk trade, the salt is air-dried. Huge piles of salt are allowed to drain and season on the warehouse floors for several weeks before being shipped. About 22.5 per cent of the total production of this plant is dried this way. Refined salt is for the most part kiln-dried. After being dried the salt passes over one of several kinds of screens from which it falls through chutes to a series of bins, where it is sorted as to size and grain. From one of these bins, salt is drawn off and mechanically mixed with 0.02 per cent potassium iodide to make the iodized table salt. Mechanical mixers also incorporate one per cent filler with the salt to be used for table purposes, to prevent absorption of moisture and consequent hardening.

No Hands Touch Salt

On one floor of the refinery, package shells are wrapped with the labels and dropped down to the next floor. Here they are filled, weighed, and sealed by machinery to be put on the market as the 2-lb. round carton of table salt. On this same floor, "pockets" the trade name for small bags, are filled, sewed, and packed for shipping. The square-carton machines fill, weigh, and tight-wrap with attractive labels boxes of salt weighing from 1½ to 3 lbs. The large packages are all handled on the main floor. Adjacent to the refinery is a cooper shop making the barrels to be used in the salt plant. These barrels are rolled automatically from the

cooper shop to the refinery, where they are filled, weighed, and loaded into freight cars. Bags weighing from 25 to 200 lbs. also are filled and sewed on this floor. At no time through the entire process is salt handled by human hands.

Table salt is far from the only factor in the business of the plant, constituting but 50 per cent of the production. Most of the large users of salt desire a product particularly suited to their needs. Butter makers must have a small, soft-flake salt of high purity;



DOROTHY ROBINSON
ROSS, '28

the cheese manufacturers desire a similar salt but of coarser grain; the canners demand a fine granulated salt to maintain color and freshness in their products; the flour manufacturers mix an exceptionally fine salt with prepared flour. The meat packers in Chicago alone, last year, used 500,000 tons of coarse flake salt in curing and preserving meat. In other words, each manufacturer must have a salt which is adapted for his purpose, and by varying treatment of brine, method of manufacture, drying, and screening, all of these demands can be supplied. Even the farmer has salt put up especially for his use.

Chemist Has Important Role

The chemical laboratory plays an important part in salt production. A constant check is placed upon all salt manufacturer. The laboratory serves two purposes, analytical and research. Research is the price of progress, and in no better place is this illustrated than in the salt business. The progress from the boiling of brine in open iron kettles to the modern vacuum-pan evaporation is the result of years of patient labor of this kind.

To facilitate canoeing below the dam in the Red Cedar and to improve the river generally between the Campus and Lansing, workmen lately have been engaged in removing logs and other debris from the river and improving the various rapids and sand banks. Another dam will be constructed near Harrison road and effect the raising of the water level sufficiently high to permit canoeing to that point.

That "Last Call" folder reminded many of their alumni fund contribution. How about you?

Are you a delinquent subscriber?



Agriculture

Michigan's 1930 class of twelve Master Farmers selected by a committee appointed by the *Michigan Farmer* were entertained at the Union building, November 19, at which time the appointments were officially made public. The program following the banquet was broadcasted by WKAR, the college radio station, and included addresses by Senator Arthur Capper of Kansas; Governor-elect Wilber M. Brucker; Professor E. L. Austin, of the education department; Burt Wermuth, editor of the *Michigan Farmer* and E. W. Lincoln, president of the Master Farmers' organization.

The 25th annual convention of the Michigan Implement Dealers' association was held in Demonstration hall, December 2-4. A large exhibit of farm implements by more than 40 manufacturers was housed in the riding hall of the building while meetings were held in the ballroom. The agricultural engineering division, for the fourth year, sponsored the exhibit and meeting.

Director R. W. Tenny, '19, of short course division, announces that classes so far this year are the largest since 1923. A total of 65 students were enrolled in the special one-week horticultural course held earlier in the month.

Michigan State's animal husbandry team composed of Robert Laser, Evelyn Bradley, Wilton Finley, Charles Davis, Laurel Keyt, and John Lessiter, and coached by Professor G. A. Brannaman, took eleventh place at the intercollegiate contest held in Chicago in connection with the International Livestock show. Twenty-two teams competed. The farm crops judging team coached by Professor Herbert Pettigrove, '20, and including Robert Lincoln, Harold Knoblauch, H. J. Finley, and H. H. Burgess took fifth place among the six college teams entered.

Applied Science

An appropriation of \$15,000 was received by the College bacteriology department recently from the Commonwealth endowment fund, to be used in research work on infectious abortion of cattle and swine, and undulant fever in man. The National Research

"CLOSE BESIDE THE

Council which distributes the money for such purposes appropriated the fund for Michigan State only after a thorough inspection of the department and the personnel here had convinced representatives that the work could be properly carried out. The project is already under way with I. F. Huddleson directing.

Cats and dogs seem to be increasingly popular at the physiology laboratories this term. And the reason is that a greatly increased enrollment has necessitated the use of more canine and feline specimens. Total "consumption" for the year is estimated at 60 cats and 40 dogs, as well as 150 frogs and a dozen pigeons.

A newly discovered insect, the nose or throat bot of deer, *Cephenomua phobifer*, is being studied by the College entomology department with hopes of working out some means of control or eradication. The insect spends most of its life in the nasal passages of the deer, feeding on secretions caused by its attachment. When large numbers exist, the animal is weakened sufficiently so as to become especially susceptible to disease. The states of Pennsylvania and Colorado, as well as Michigan reports damage by the pest.

Acting as research physicist in the College physics department, Dr. C. W. Chamberlain has begun work on a method for measuring long distances by means of a beam of light, and also on the problem of reducing the shock caused by steam hammers in forge plants.

Members of Geogangue, the College geology club, were entertained recently by L. C. Hulgert of the state conservation department when he showed moving pictures of the 3,000 mile field trip taken last spring by a party of senior geology students. Professor S. G. Bergquist, head of the geology department, explained salient features of the trip which included visits to virtually all of Michigan's interesting geological features.

A new 85-foot tower has been completed recently to the rear of the new weather bureau for the measuring of

wind velocities. Starting with but meager equipment, Dr. R. C. Kedzie, father of "Uncle" Frank Kedzie, began weather observations on the Campus in 1863. Various improvements since then, including the new building occupied in 1928 and the recently added tower, make the bureau one of the finest in the state.

Fred Baughman, assistant observer at the College weather bureau for the past five years, has been transferred to Pomona, California, where he will act in a similar capacity. Mr. Otto Crawford, who has been studying at the Port Huron weather bureau for the past two years, will fill the position formerly held by Mr. Baughman.

"Biological Aspects of the War" is the title of a new book, by Professor H. R. Hunt of the zoology department, which came from the press of Galton Publishing company of New York recently.

Alpha Chi Sigma, professional chemistry fraternity, initiated on December 6 the following men: Professor E. L. Eldridge, Lansing; Professor Charles H. Spurway, Lansing; Ivan C. Hepfer, '32, Lansing; Roger T. Jackson, '31, East Lansing; Nyles W. Baltzer, '32, Scottville; Keith D. Crane, Lansing; John L. Etchells, '31, St. Clair; Theron D. Parker, '31, Fowlerville; and three graduate students: E. Cecil Tabor, Alfred Clark, and T. L. Canniff.

Engineering

A new Christie variable compression test engine has been added to the equipment of the power laboratory in the mechanical engineering department. Many new and improved features include variable compression which can be adjusted while the engine is in operation, a tachometer, duel carburator, and a cooling system which permits the cooling of any cylinder or part of the cylinder head separately.

Phi Lambda Tau, local honorary engineering fraternity, held fall term initiation just previous to the Thanksgiving holidays, adding the following men to the membership list: D. C. Carruthers, '31, Plymouth; E. H. Holtz-



WINDING CEDAR"

kemper, '31, Owosso; R. W. Peterson, '31, Gowen; E. J. Storm, '31, Grand Marais; C. A. Woodard, '31, Hillsdale; A. A. Ardziejewski, '32, Hamtramck, and A. P. Thomas, '32, Lansing.

Hands flew up and faces turned pale throughout Olds hall last week when the building was apparently visited by a gang of "racketeers." Investigation showed that the cause of the concussion had been the sudden explosion of a compressed air tank in the basement of the steam laboratory. No one was injured and the only damage done was a few broken windows.

Robert W. Dearing, representing the local branch of the American Institute of Electrical Engineers, attended a meeting of the Great Lakes district committee of student affairs of the institute, in Chicago, Monday, Dec. 1. Professor W. A. Murray of the faculty was also in attendance.

The mechanical engineering department recently announced the offering of the Charles T. Main Award of \$150 to the author of the best thesis submitted by a student of the department on any engineering subject or investigation. June 20, 1931, is the closing date of the contest, and awards will be announced ten days later.

Professor C. M. Cade, of the civil engineering department, recently attended a convention held by the Water Power committee of the National Electric Light association in Urbana, Illinois. His work, as well as his teaching, is largely related to hydro-electric development.

A new 50-watt transmitter for the amateur broadcasting station, WASH, located in room 111, Olds Hall, is being built by William Rasikas, '33; Milton Klintworth, '34, and Gary S. Morgan, '34. The new set will have a crystal quartz control frequency, one of the newest radio developments. B. K. Osborn of the electrical engineering faculty is in charge of the work, while Rasikas is chief operator.

W. H. Bliss, of the electrical engineering department, has devised an electrical contrivance similar to the "Tele-

vox" or "robot" which the Western Electric company developed some time ago. The Bliss instrument, however, is much more compact and uses 110-volt house current instead of batteries. By using the appliance, a number of successive tasks may be performed by sounding a note or word into the transmitter of the telephone which may or may not be situated near the contrivance. Hence, it is possible to call and have hot water ready for the bath when one arrives home.

The student branch of the American Society of Civil Engineers enjoyed an illustrated lecture recently by George B. Viles, general manager of the Chicago and Northwestern railroad on the subject "Automatic Train Control." Several C. E. students made the acquaintance of Mr. Viles while on an inspection trip in Chicago last spring, and it was through them that he was secured for the engagement here.

A representation of ten students from the local branch of the American Institute of Electrical Engineers attended the meeting of the Detroit-Ann Arbor branch which was held in Jackson. Several faculty members also attended.

Home Economics

Miss Barbara Van Heulen, '10, arrived recently to take up her duties as home marketing specialist in the extension department. Beside undergraduate work here at Michigan State, Miss Van Heulen has had considerable training, first as assistant state leader of 4-H clubs in Michigan and more recently at the Francis Parker school in Chicago, having been connected with that institution for several years before accepting her position here.

Appointments, based largely upon high scholastic standing, have been made from the senior class of four girls to attend the Merrill-Palmer school in Detroit during winter term. Those who will represent Michigan State next term are: Edith L. Gerlash, Leila P. Lattin, Eleanor I. Hoover and Gertrude A. Noeske. Those who will return from the school at Christmas time are: Marion MacDough, Bell

Trott, Mrs. Alice Cutler Thorpe, and Bernice Brundson. The Merrill-Palmer school is one of the outstanding child study institutions, and specializes in mental growth and development of character in very young people.

At a regular meeting of the Home Economics club held just previous to the Thanksgiving recess, Margaret C. Goodenow, '31, gave an interesting report on the convention of the Michigan Educational association which she attended in Battle Creek as a delegate from the club.

While on an extended trip through the east recently, Dean Marie Dye attended two meetings of the Land Grant College association in Washington. The first one was that of the National Council of Parental Education which was held November 15, 17, and 18 at the Willard hotel. The purpose of this meeting was to advise training for parents to help educate their children. The second meeting which Dean Dye attended was that of the Land Grant association which convened November 17 to 19. At this meeting Dean Dye was chairman of one of the home economic sections which discussed personal work with home economics students, and the part that home economics plays in the adult educational program.

Liberal Arts

Due to ill health caused by bronchial asthma following an operation last summer, Dean E. H. Ryder, who is also head of the history department, departed recently with Mrs. Ryder for Florida where they will spend the winter months. In the absence of Professor Ryder, B. B. Proulx, assistant to the dean, has taken over the management of the liberal art's office and will be in charge until Mr. Ryder's return. Mrs. Mary A. Hendrick, associate professor of history, has taken Professor Ryder's place as acting head of the department. To aid in history instruction work due to Professor Ryder's removal, Miss Rena M. Andrews of Chicago has been added to the staff as instructor in medieval and modern European history. Miss Andrews received her master of arts degree at the University of Chicago and has done considerable teaching in that city.

Farmers' week, February 2 to 6.

Basketball Starts

COACH BEN VAN ALSTYNE'S latest Spartan court edition failed to impress its followers or its coach when in humbled the University of Cincinnati by a score of 22 to 8 in the opening game in Lansing on December 5, nor was there much joy in the camp over their first defeat in three seasons by the University of Michigan last Saturday evening, in the score of 32 to 22.

Practically the only commendable feature of the first game was the stout Spartan defense which was not pierced once during the entire game by the Ohio team, which failed to make a field goal. The unusually tight defense may be attributed to the work of State's veteran guards, Art Haga and Wayne Scott, who showed some of the form that has distinguished Spartan court teams in the past.

In the second game of 1930-31 schedule Michigan gained ample revenge for the defeats which Van Alstyne's teams had administered two years in a row.

Outplayed during the first half, the Spartans spurted during the second half and drew up within 8 points of the Wolverines, but Norm Daniels, Michigan center, soon put his team out in front by his sensational basket-shooting. He, alone, was responsible for 11 of the Wolverine's points.

Michigan displayed a fast passing attack which the green Spartan team could not stop. Scott and Haga, on defense for the Spartans, checked well, but their teammates failed to cover their men.

Class-room work and term examinations will keep Van Alstyne's men busy until vacation starts, and during the holidays two strong opponents will come to the East Lansing court in the Brigham Young and Ohio Wesleyan quintets.

MICHIGAN			MICH. STATE				
	B	F	P	B	F	P	
Weiss, rf	2	2	6	Pinneo, rf	4	2	10
Eveland, lf	3	0	6	Wykes, df	0	0	0
Hudson, lf	0	0	0	Grove, lf	1	3	5
Daniels, c	5	1	11	Barnard, lf	1	0	2
Ricketts, c	0	0	0	Boekskool, c	0	0	0
Garner, c	1	0	2	McCaslin, c	0	0	0
Altenhof, rg	1	1	3	Haga, rg	0	0	0
Williams'n, lf	0	0	0	Vondette, rg	0	0	0
Shaw, lg	1	2	4	Scott, lf	2	1	5
Downing, lg	0	0	0				
Totals	13	6	32	Totals	8	6	22
Officials	Feezle and Molony.						

OSMOND C. HOWE, 1883
Osmond C. Howe, '83, member of the brokerage firm of Howe, Ruch and Jensen of Lansing, passed away at his home 725 N. Capitol avenue, November 29.

Born in Berrien county, October 3, 1859, Mr. Howe attended the Michigan Agricultural college and was graduated in 1883. Three years later he married Fannie A. Long, and in 1899 moved to Lansing, where he had resided since that time. His first position was in the office of the secretary of state, where he had charge of the agricultural division. He next was in the state dairy and food department, subsequently entering the brokerage business.

He was a member of Lansing Lodge No. 33, F. & A. M., Lansing Lodge of Elks No. 196, and of the Chancellor John Lansing Chapter, Sons of the American Revolution, and the Union Literary society of the College.

Mr. Howe is survived by the widow, a daughter, Mrs. Bessie Howe Geagley, Lansing; a granddaughter Betty Ann; one brother, Fred W. Howe, and two sisters, Mrs. Bryan Treat and Mrs. May Lister, all of Buchanan.

HAROLD W. HAYES, 1917

Harold W. Hayes, '17, died November 18 following an operation for appendicitis. Mr. Hayes was an engineer with the Chrysler corporation and had lived in Royal Oak for several years. He is survived by his wife, a daughter, and his parents, Mr. and Mrs. Richard Hayes, of Lansing.

Lansing welcomed Rear Admiral Richard E. Byrd, conqueror by air of both poles, when he appeared at the Prudden auditorium on the evening of December 10. The M. S. C. band gave a short concert preceding the explorer's lecture.

Farmers' week, February 2 to 6. Come!

IN MEMORIAM

ALBERT DODGE, 1877

Albert Dodge, '77, former Detroit lawyer and Grand Chief Templar of the Michigan Good Templars, died suddenly Saturday, November 1, at his home in Pasadena, California, after a heart attack. He is survived by his widow and three children.

After graduating from the state normal college at Ypsilanti and M. S. C., he completed the law course at the University of Michigan. He practiced law in Fowlerville, Grand Rapids and Detroit.

From Detroit he went to West Virginia and bought an interest in a hardwood lumber-manufacturing company. At one time, before spring clothespins were in vogue, his company produced half of the national output of old-style clothespins from plants at Richwood, West Virginia and Lincoln, New Hampshire.

The family moved to Pasadena twenty-one years ago and he was active in business and Masonic circles until 1922, when he retired, retaining only a vice-presidency in the Pasadena National bank. He was a Past Master of the Richwood, West Virginia, Masonic lodge and had held the highest office in all of the York Rite Masonic bodies since living in Pasadena.



THE accompanying cut shows the architect's drawing of the new \$65,000 house of the Ae-Theon fraternity, corner of Woodmere and East Grand boulevard, which will be formally opened at an appreciation dinner and house-warming, Saturday evening, January 10. The structure is of brick veneer and essentially English Tudor in design. The main entrance faces on Woodmere, with a terrace on Grand River. The house is built to accommodate 40 men.

Prominent Alumni Appear in Legislative Posts



NORMAN B. HORTON,
'02



A. C. MacKINNON,
'95



JESSE G. BOYLE,
'08



STANLEY POWELL,
'20

ACTIVE in solving the perplexities of the coming legislature will be found three Michigan State men who are veterans in the game and joining their ranks will be a younger member of the alumni family.

Norman B. Horton, '02 of Fruit Ridge, will return to the state Senate from district 19 of Lenawee county. Mr. Horton has served his district in the sessions of 1923, 1925, 1927, and 1929. He has always been active in the upper house and was one of the chief proponents of the bill which a few years ago led to the changing of the name of

this institution to Michigan State college.

Arthur C. MacKinnon, '95, of Bay City, past president of the M. S. C. Association, returns from the first district of his county as representative in the next legislature. He, also, has served in the sessions of 1923, 1925, 1927, and 1929. MacKinnon has been chairman of the College committee for several years and has sponsored important bills in the House where he is known as a "silent" veteran.

Jesse G. Boyle, '08, of Buchanan, returns from the first district of Berrien county as representative, having served

his constituency in the sessions of 1927 and 1929. He was chairman of the normal college committee and member of various committees having agricultural problems under advisement in 1929.

Stanley Powell, '20, of Ionia, one of the youngest alumni to enter the legislative halls, will serve as representative from Ionia county in the coming session. Powell has been very active in Grange work and civic enterprises since leaving College. Besides managing the homestead farm near Ionia, he has lectured extensively before farm organizations and written for state magazines.

SPARTAN CLUBS

WASHINGTON, D. C.

DURING the annual session of the Association of Land Grant Colleges in Washington, 34 graduates, former students and friends of M. S. C. gathered together November 19 for a luncheon at the Willard hotel. President R. S. Shaw brought greetings from the College, and presented a graphic picture of present-day activities. Mrs. Dora Stockman, of the State Board of Agriculture, told of the progress being made in the home economics department of the College. Others present from the College included Dr. Marie Dye, Edna V. Smith, '04; R. J. Baldwin, '04, and Mrs. Baldwin (Bertha VanOrden, '14); Victor Gardner, '05; Professor Dirks and Dr. E. L. Austin.

Other guests from out of town were U. P. Hedricks, '93, Geneva, New York; M. H. Lapham, '99, California; E. A. Burnett, '87, Lincoln, Nebraska; C. P. Gillette, '84, Fort Collins, Colo.; C. A. McCue, '06, Delaware; Julia Grant, '06, Detroit.

Members of the Washington group present were C. J. Woodbury, '04; C. A. Reed, '05, Catherine M. Reed, '05; D. A. Gurney, '04; Dr. and Mrs. S. L. Jodidi;

F. L. Lewton and Mrs. Lewton (Blanche Clark, w'12); Edna B. McNaughton, '11; A. L. Alderman, '16 and Mrs. Alderman; H. C. Skeels, '98; Cora Feldkamp, '05; R. A. Turner, '09; Florence Hall, '09; Alice Latson, '09; G. H. Collingwood, '11; Portor Taylor, '15; Damon Spencer, '12.

—Florence Hall, Secretary.

DETROIT ELECTS OFFICERS

THE annual meeting of the board of directors and election of officers of the M. S. C. club of Detroit was held following a dinner at the Masonic Temple, Tuesday evening, December 9.

Direction of the activities of the club passed from E. C. Krehl, '08, former president, to Hans Keydel, '20. Other officers elected included James McCosh, '28, first vice-president, C. E. Thompson, '16, second vice-president and Russell Palmer, '22, secretary-treasurer.

With the addition of five new directors, who serve for three years, the complete personnel of the board of directors is as follows: one year term, C. C. Hood, '17; G. V. Branch, '12; John Kenyon, '14; Donald Robinson, '22; Alfred Haines, '17; two year term, O. A. Taylor, '15, Fred Woodworth, '98; Ralph Dailey, '28; C. H. Eddy, '15 Hans Keydel, '20; three year term, Russell Palmer, '22; James McCosh,

'28; Henry Johnson, '27; C. E. Thompson, '16, and K. J. Scott, '27.

Immediate plans of the Detroit club call for a joint meeting of all men and women at a dinner-dance late in January, at which time President Shaw, Coach Crowley and Dean Marie Dye have been asked to speak.

CENTRAL MICHIGAN ELECTS

THE board of directors of the Central Michigan alumni club met at the Union on the evening of November 10, and elected the following officers for the coming year: Earl E. Hotchin, '12, president; Mrs. Florence England, '16, first vice-president; Arthur Hurd, '10, second vice-president and Carl F. Schultz, '25, secretary-treasurer.

The entire board of directors which were elected some time ago is composed of the officers and Dorothy L. Crozier, '17; Arthur L. Lyons, '00; Mrs. Thos. Gunson, '12; Blake Miller, '16; Fred Radford, '01; Fred M. Wilson, '17; Katherine Cox, '17, and Mrs. Karl Brucker, '12.

In addition to sponsoring the annual football bust the Central Michigan M. S. C. club will join with the inter-collegiate group of Lansing in the annual mid-winter dance, which has been very successful for the past two years.

SPARTANS LOOK BACK ON SUCCESSFUL YEAR

(Continued from page 6)

a touchdown. The Spartan defense held Detroit to two first downs and 63 yards in gains while making seven first downs and 206 yards on their own hook. State did everything to Detroit but score. The showing gave further proof that Spartan football was better than the Detroit brand, at least on this occasion.

Coach Charles Dorias, of Deroit, paid the State team a radio compliment when he said that Fordham and State were the two most capable opponents his team met in their season. Another feature of the Detroit game, aside from the actual play, was the fine manner in which the crowd conducted itself after the game. In contrast to the near-riot of the previous year, the scene was very peaceful and a well-behaved crowd of 19,000 spectators, left the stands after the game. This reaction apparently satisfied authorities of both schools that they could afford to sanction further football relations.

Winning Team Attracts Crowd

From an attendance standpoint, even in a rather dull year for football gates, the totals were larger than ever before in history. Some 30,000 attended the Michigan game, 19,000 were here for Detroit, and 15,000 paid at Washington. The crowds that watched State play

must have totaled nearly 100,000. A winning team was plainly the reason.

Coach Crowley has already started laying plans for a forbidding schedule for next season. He has Georgetown and Syracuse scheduled for home games and Michigan, Army and Detroit for contests on foreign fields. Prospects are not particularly brilliant, but Crowley has a way of building good teams out of material that would cause other coaches to shake their heads in despair.

All in all, the best football spirit since the good old days of the Julians, Millers, DePratos, Exelbys and others, dominates the State campus.

1929-30 BASKETBALL SCHEDULE

Dec. 5—M. S. C. 22, Cincinnati 8
Dec. 13—M. S. C. 22, Michigan 32
Dec. 29—Brigham Young at East Lansing
Jan. 1—Ohio Wesleyan at East Lansing
Jan. 9—Marquette at East Lansing
Jan. 16—Colgate at Hamilton, N. Y.
Jan. 17—Colgate at Hamilton, N. Y.
Jan. 23—Kalamazoo Col. at East Lansing
Jan. 27—Central State at East Lansing
Jan. 30—Western Reserve at Cleveland
Jan. 31—Oberlin at Oberlin, Ohio
Feb. 6—Alma at East Lansing
Feb. 10—Detroit at East Lansing
Feb. 14—Loyola at East Lansing
Feb. 21—Detroit at Detroit
Feb. 28—Marquette at Milwaukee

To avoid the usual registration-day rush and give two extra days of vacation at Christmas time, pre-classification of all students was held Monday, Tuesday, and Wednesday, December 8, 9, and 10. Schedules were arranged at that time and all classification completed. Payment of fees was not required at that time. If not paid during those three days, the students will still have the privilege of mailing the fees at any time before December 31, under the new plan. Otherwise, students will have to return January 3, as before, to pay their fees. Those receiving failures fall term will also have to return January 3 to revise their classifications for the winter term.

Pi Delta Epsilon, national honorary journalistic fraternity, held its regular fall term initiation, Thursday afternoon and evening, December 4, at the Union, the banquet following immediately. The following men were accepted into membership at that time: Henry Hutton, '31, Plymouth; Guilford Rothfuss, '31, Brooklyn; John Tate, '31, Detroit; Earl Steimle, '31, Benton Harbor, and Harris Coates, '32, Lansing.

That "Last Call" folder reminded many of their alumni fund contribution. How about you?

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Lansing, Michigan

ALUMNI AFFAIRS

1889

Edward N. Pagelsen, Secretary
Box 315 Panama City, Fla.

That the popularity of "Adventures in Contentment" by David Grayson (Ray Stannard Baker) is steadily increasing can be seen by the fact that a new edition of the charming essays has been recently published by Doubleday, Doran and Company. Only those of you who have read these delightful philosophical pictures can know how much the non-readers have missed.

1891

W. O. Hedrick, Secretary
220 Oakhill, East Lansing, Mich.

The Christian Science Monitor of October 29 contains an article about M. S. C.'s famous "Twins of Agriculture," Frederick B. and Herbert W. Mumford.

1907

George Brown, Secretary
East Lansing, Mich.

L. B. Hitchcock is a contractor in Phoenix, Arizona. P. O. Box 296 reaches him.

F. E. N. Thatcher is the structural engineer in charge of work on the new state prison at Jackson, Michigan. He lives in Jackson at 528 W. Ganson street.

O. A. Kratz is city manager of Covington, Kentucky, where he lives at 2212 Oakland avenue.

Hugh Glazier is assistant manager of sales for the Genfire Steel company, Youngstown, Ohio. He lives in Youngstown at 443 Madera avenue.

1909

Olive Graham Howland, Secretary
313 Forest Ave., East Lansing, Mich.

Frank R. Parker gives his address as 753 W. Market street, Apt. 405, Akron, Ohio.

H. H. Harrison may be reached at 1107 S. First street, San Jose, California.

Edwin B. Hulett was a guest of the Detroit Alumni club one Wednesday in October, enroute to visit his father at Okemos and look over the Campus. Hulett is with the Yates-Hulett Paint company in Los Angeles.

J. Harry Nelson is mayor of Bay City and manager of the Industrial Service company there. He lives at 2225 Carrol road, Bay City, Michigan.

Frederick P. Alderman is doing natural gas engineering work for the Central Public Service corporation and is located at Atlanta, Georgia, 176 12th street N. E.

1911

James G. Hayes, Secretary
213 Bailey St., East Lansing, Mich.

D. C. Carpenter recently was made head of the chemistry department of the New York experiment station at Geneva.

Walter E. Vance should be addressed

at 523 W. Washtenaw, Lansing, Michigan.

Harry Lee Baker is state forester in Florida forest service with headquarters at Tallahassee.

Frank C. Dayharsh is doing park work in Spokane, Washington, where he lives at 517 W. Dalton.

Evelyn Kopf Barnes (Mrs. G. M.) may be reached at Watertown Arsenal, Boston, Massachusetts.

H. A. Lossing lives at 16236 Tuller, Detroit. He is a sales engineer.

Edna Belle McNaughton is professor of home economics education at the University of Maryland, College Park. She lives in Washington, D. C., at 1750 16th street N. W.

W. W. Pratchner is head of the chemistry department at Reedley Junior college, Reedley, California.

Fred J. Richards is a civil engineer with the Flint city assessor's department. He lives at 404 Mary street.

Stanley Perham is a consulting engineer with offices at 937 Architects and Builders building, Indianapolis, Indiana. He lives in Indianapolis at 4507 Carrollton avenue.

1914

Henry L. Publow, Secretary
East Lansing, Mich.

Ralph D. Jennings is with the Bureau of Census, Washington, D. C., and lives in Bethesda, Maryland.

Norman M. Spencer is in the cost department at the Gray Iron foundry of the Chevrolet Motor company at Saginaw, Michigan. He lives at 226 Storch street.

Frank E. Phelps gives him home address at 1727 Tannahill avenue, Dearborn, Michigan.

Roy F. and Alice Wood Irvin are living at 1949 Euclid avenue, San Marino, California. Irvin is in the advertising business at 1300 Sautel street, Los Angeles.

The Los Angeles Advertising club is conducting over station KMPC a series of educational broadcasts on the value

of advertising. On October 29, Don Francisco, vice-president of Lord & Thomas and Logan, talked on how advertising had served the housewife. The University of Southern California is sponsoring the broadcasts.

Ruth Turner is a commercial artist with offices at 601 Boyer building, Detroit. She lives in Highland Park at 243 Elmhurst avenue.

S. P. Doolittle is senior pathologist in the Bureau of Plant Industry of the U. S. Department of Agriculture, Washington, D. C. He lives in Washington at 1519 44th street N. W.

M. B. Kurtz is serologist in the Michigan Department of Health, and lives in East Lansing at 422 M. A. C. avenue.

Lenore Nixon Johnson (Mrs. R. C.) writes from 1304 N. 35th street, Lincoln, Nebraska: "We are living two blocks from the Nebraska Agricultural college entrance. Have met a number of the H. E. instructors through the Omicron Nu society. They have very kindly included me in their meetings."

O. M. Gruhitz is research pathologist, bacteriologist and pharmacologist for the Parke, Davis and company, Detroit. He lives at 580 Hampton road, Lochmoor Village, Detroit.

1915

Rolan W. Sleight, Secretary
Laingsburg, Mich.

Fred Moran, vocational agricultural teacher of the Donaldson Consolidated schools, Donaldson, Arkansas, writes as follows: "The enclosed photo I took at our State Fair October 6, of R. D. Maltby, '04, whose picture will unroll memory's cinema for grads of '04 and about that time. Maltby is regional agent for the Southern state in vocational education and lives in Washington, D. C. The "Big Chief" as we call him, visited our vocational exhibit and F. F. A. encampment at the state fair and will leave it to you by his happy expression how he reports our work in this state.

"The young man next to Maltby is Bill Polk, of Center Ridge, high man in our Future Farmer of America oratorical contest.

"There is a feeling of great regard for the old Alma Mater when one meets men from his own college in charge of work of such scope that gives to farm boys an equal chance with other forms of instruction for life work. Although we in Arkansas have one of the sweetest ships in the navy named for us, the Star Farmer, and received highest in individual dairy judging honors in the United States, and are proud of the mythical fence we can put around the state and still live, still I feel I need the RECORD every month."

Calvin J. Gatesman is a chemist for the Wayne Chemical Products com-



R. D. Maltby, '04, at right
(See 1915 class notes)

pany, Copeland & M. C. R. R., Detroit. He lives in Dearborn at 348 W. Garrison.

Bishop B. and Mildred Farwell Adams are living at 222 Griggs street S. W., Grand Rapids, Michigan.

Verne Steward is associate general agent for the Pennsylvania Mutual Life Insurance company in Los Angeles and also director of the Los Angeles chartered life underwriter classes. He lives in San Pedro at 804 S. Walker.

Edward L. Underwood is a chemist for the Michigan Producers Dairy company, Adrian, Michigan, where he lives at 833 Lincoln avenue.

F. S. Vaughan gives his new address as 4026A N. Keystone avenue, Chicago, Illinois.

1916

Herbert G. Cooper, Secretary

1125 S. Washington Ave., Lansing, Mich.

Bessie Halsted Milbrook (Mrs. R. H.) has moved in Detroit to Warren Court apartments, 7010 E. Warren avenue.

Arthur H. and Marion Leonard ('15) Atzenhoffer are living at 623 Byrkit avenue, Mishawaka, Indiana. Atzenhoffer is development engineer for the Mishawaka Rubber and Woolen company.

Karl B. King is manager of the Peck & Hills wholesale furniture company at 642 N. Broad street, Philadelphia, Pennsylvania. He lives in Ardmore at 18B Hamilton Court apartments.

Walter T. Gorton is a captain in the Ordnance department of the U. S. Army and he and Mrs. Gorton (Ruth Tibbs, '17) are located at Aberdeen Proving ground, Maryland.

Rudolph Eriksen is with the H. J. Heinz company at Pittsburgh, and lives at 706 Means avenue, Bellevue, Pennsylvania.

Clarence N. Winston is an automobile merchant at 1909 N. Michigan avenue, Saginaw. He and Rhoda Reed Winston live at 608 Hoyt street.

Justin P. Smith is assistant general foreman of maintenance for the Hudson Motor Car company, Detroit, and lives at 363 Marlborough.

Earl M. Harvey is occupied with the Harvey processed colored sands at 1357 E. 17th street, Los Angeles. He lives at 429 N. Mansfield.

Henry A. and Bernice Hales ('17) are American board missionaries in Edinburg, Texas.

L. Henry Gork is city manager of East Grand Rapids, Michigan, and lives in Grand Rapids at 152 Fuller, S. E.

N. J. DaPrato has found it profitable to run a small poultry farm at Parkesburg, Pennsylvania. Jerry, "Dutch"

Alumni Luncheons

DETROIT—Every Tuesday noon, 12:15, main dining room, Masonic Temple.

LANSING—Every Monday noon, 12:00, Estill's cafeteria, Elks Temple.

GRAND RAPIDS—Every Monday noon, 12:15, cafeteria, Elks Temple.

Miller, Fridodig, and "Carp" Julian, greeted smiling John Farrell Macklin on his visit to Washington for the Georgetown-M. S. C. game. Those good old "Aggie" days from 1913 to 1915 were reviewed as only such a quintet could, and the Oregon game was part of the gossip, no doubt.

1917

Mary LaSelle, Secretary

420 W. Hillsdale St., Lansing, Mich.

At the October meeting of the State Board of Agriculture, John D. Martin and A. B. Love were appointed extension specialists in farm marketing.

Fred H. Jacks is a chiropractor and may be reached at 13700 Woodward avenue, Highland Park, Michigan.

James B. Rasbach is in the government civil engineering service, and lives in Accotink, Virginia. He found time to root for the Spartans at the Georgetown game.

Robert H. McWilliams is a sales engineer for the York Ice Machinery corporation, York, Pennsylvania. He lives out of York on route 7.

Marguerite Ryan Hill (Mrs. Lyman) lives at 811 Manhattan avenue, Dayton, Ohio.

Clayton F. and Mae Hamilton ('15) Barnett live in Flint at 321 Weller street. Barnett does accounting work for the Buick Motor company.

Dwight C. Long is an instructor in the history department at the University of Michigan. He lives in Ann Arbor at 332 E. Madison street.

Leola Lewis Sessions (Mrs. D. W.) has moved in Chicago to 7701 Phillips avenue.

Alfred T. Halsted is minister of the M. E. churches in Union City and Sherwood, Michigan. Mail reaches him addressed to Box 213, Union City.

F. O. Graham is an engineer with the Kelvinator corporation in Detroit where he lives at 15000 Cruse avenue.

Daniel E. Gower is an inspector in plant quarantine and control administration for the U. S. Department of Agriculture and has his offices in Room 1, Custom House, Detroit. He lives at 12795 Ardmore avenue.

Charles E. Garthe is with the Grand Traverse Metal Casket company in Traverse City where he lives at 223 W. 11th street.

William C. Eggert is an electrical engineer inspector for the Bureau of Engineering, City Hall, San Francisco. He lives at 2190 Grove street.

Samuel S. Dwight is an instructor in physics at M. S. C. and lives in East Lansing at 239 Hillcrest avenue.

Harold and Mary Baldwin ('15) Canfield are living at 18 Sunset Lane, Columbia, Missouri. Canfield is extension poultry specialist for the University of Missouri.

Edward B. and Alice Kuenzli ('16) Benson are living in Nevada, Ohio.

G. Lee Barnes is a super-service station operator at 518 W. Michigan avenue, Three Rivers, Michigan. He lives at 613 W. Michigan. A daughter, Roeberta Lee was born April 20.

Charles D. Anderson gives his residence address as 18 E. Welling avenue, Pennington, New Jersey.

Charles H. Rouse may be reached at 152 Hamilton street, Geneva, New York.

Delbert M. Prillerman is teaching at Bluefield Institute, and living at 316 N. Mercer street, Bluefield, West Virginia.

Lyle M. Wilson is in the linen business at 1917 Boardwalk, Atlantic City, New Jersey, and lives at 120 N. Massachusetts avenue.

Lou Ella Butler is an executive in the City Service department of the Y. W. C. A. in Los Angeles.

Roscoe D. Kean is owner of the Windmill Tourist camp at Seneca Falls, New York.

Edward C. Huebner is a stock broker with S. R. Livingstone & Co., 409 Griswold, Detroit. He lives at 4417 Lakewood.

Fred S. Hobbs is a district inspector for the Merchants Despatch Inc., 120 East South Water street, Chicago. He lives in Benton Harbor, Michigan, at 313 Brunson avenue.

Roscoe W. Rice is a chemist with the Hayes Wheels and Forgings Ltd, Chatham, Ontario, Canada. He lives in Chatham at 237 Queen street.

Otto W. Pino is teaching agriculture in the high school at Zeeland, Michigan, where he lives at 144 Pine street.

Harry Lee Campbell is a captain in the Ordnance department of the U. S. Army, and is located at the Ordnance Office, 5th Corps Area, Fort Hayes, Columbus, Ohio.

Arthur E. Bayliss is a steel designer for the Detroit Edison company. He lives in Detroit at 3404 Chope place.

Roy H. Cromley is president of the Serv-A-Tank company, 1220 Free Press building, Detroit. He lives at 1189 Lakewood.

1919

Paul Howell, Secretary

1010 Braman St., Lansing, Mich.

Marion Thomas Pattison (Mrs. J. B.) gives 843 Whitmore road as her Detroit, Michigan, address.

Agnes McKinley is living at 207 Stone apartments, 222 East First street, Flint, Michigan.

Glenn L. Lankton lives in Detroit at 495 Brentwood avenue West.

Mrs. Cornelius Hoogesteger (Esther Snyder) is living in Grand Rapids, Michigan, at 1707 Wealthy street S. E.

Lawrence W. Miller is professor and

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J. Sanley Coven, '27e, Prop.

head of the department of psychology at the University of Denver. He lives in Denver at 2257 S. Fillmore street.

Ralph L. McGraw is an electrical draftsman for the Detroit Edison company, and lives in Detroit at 16542 Ashton road.

Alma Kitte Leake (Mrs. W. H.) gives her address as 112 N. Palm drive, Beverly Hills, California.

Margaret J. Johnston is teaching English at Munising, Michigan.

Paul A. Howell is project engineer for the Michigan State Highway department in Lansing, and lives at 1010 Braman street.

Ruth K. Hodgeman is head of the savings department of the Standard Savings and Loan association, 405 Griswold street, Detroit. She lives at 3772 Whitney avenue.

Karl B. Hanson is director of the United States fur animal experiment station at Saratoga Springs, New York.

Giadys Gordon Brockway (Mrs. Warner) has moved in Melrose, Massachusetts, to 28 Holland road.

Harold G. Carrow is an electrical engineer with the Detroit Edison company at Wayne, Michigan. He lives at 422 Cumberland, Dearborn.

Alice Brunson Wolbrink is living in Ganges, Michigan.

Jesse M. Bennett is superintendent of parks and forestry for the Wayne County Road commission, with headquarters at 3800 Barlum Tower, Detroit. He lives in Plymouth at 1482 Sheridan avenue.

Esther Caroline Allen is a technician at the Edward W. Sparrow hospital in Lansing, and lives at 518 W. Main street.

Erma Preston Bridge (Mrs. A. E.) has moved in Denver, Colorado, to 3675 Newton street.

Elmer F. Way is secretary-treasurer of the Industrial Laboratories, Inc., consulting chemists and chemical engineers, and vice-president and technical director of Way, Inc., manufacturers of toiletries. He has offices at 127 Commerce avenue S. W., Grand Rapids, and lives at 30 Auburn avenue S. E.

Madge E. Dilts is home adviser for the Union Carbide Sales company, 205 E. 42nd street, New York, New York. She lives at 320 E. 53rd street.

Willard Shaw Sweeney was born June 13, 1930, to Mr. and Mrs. R. C. Sweeney of 2835 Midwood, Toledo, Ohio.

1920

P. G. Lundin, Secretary
East Lansing, Mich.

Richard and Laura Hoover ('21) Kingery announce that Beverly Jeanne arrived May 9, 1930. The Kingery's reside at 1600 Morton avenue, Ann Arbor, Michigan.

Merritt A. R. and Blanche McNaughton ('18) Reeves announce the birth of a daughter, Muriel MacNaughton Reeves, on August 4, 1930. They have two other children, Merritt Jr. 11, and Marie Elaine 6.

Carl L. Warren gives his address as

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1921

Maurice Rann, Secretary
1409 Osborn Road, Lansing, Mich.

Clifford E. Skiver, former county agent at Menominee, Michigan, is with the Purdue university in plant breeding work for the extension department. He lives at 600 N. Grant street, West Lafayette, Indiana.

1922

Mrs. Donald Durfee, Secretary
12758 Stoepel Ave., Detroit, Mich.

Richard Boonstra gives his new address as Burdick street, Libertyville, Illinois.

Arthur Gardner has moved in Lansing to 1526 Illinois avenue.

Edward and Margaret Brown North announce the arrival of Jerome Kent on September 2. Their other son, Robert, 6, has been at home for the past several weeks with a fractured leg. The Norths live at 1231 Franklin, Grand Rapids, Michigan.

U. J. Noblet is athletic director of the Michigan College of Mines, at Houghton.

1923

Wm. H. Taylor, Secretary
Okemos, Mich.

Marion and Norma Collins ('26) Landon have moved from Cassopolis to Lansing where they are living at 507 N. Hayford.

Gus Thorpe, assistant state leader in Michigan 4-H club work, will assist in conducting educational tours to points of interest in and about Chicago at the twelfth national convention of 4-H clubs to be held there November 28 to December 5.

1924

Mrs Joseph Witwer, Secretary
Plymouth, Mich.

Henri Dieterman may be reached at Box 341, Newaygo, Michigan.

J. J. Jasper is living in Detroit at 681 Merrick avenue.

H. Firth Anderson has moved to 315 Evert street, Cadillac, Michigan.

1925

Frances Ayres, Secretary
East Lansing, Mich.

Matt Nuttilla is engaged in automotive equipment work and figuring how to work a truck fleet during a depression. He lives at 134 Welling road, Upper Darby, Pennsylvania. Matt was

a visitor in Washington during the last week of October and witnessed the M. S. C.-Georgetown game.

Frederick P. Alderman is doing natural gas engineering work for the Central Public Service corporation and is located at Atlanta, Georgia, 176 12th street N. E.

1930

Effie Ericson, Secretary
223 Linden Ave., East Lansing, Mich.
Marion Joslin is assistant personnel manager for the Kroger Grocery company, 4750 Merritt, Detroit.

Lewis Workman and Addison Wilber are with the U. S. department of interior, Bureau of reclamations, at Denver, Colorado, where they live together at the Y. M. C. A.

Meredith Heald is teaching at Bangor, Michigan.

Mary Iford is 4-H club agent in Chey-bogan and Otsego counties, Michigan, with headquarters at Cheboygan.

The class of 1906 will hold their anniversary party on the Campus, June 20.

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