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George Washington Curtis and Frank Arthur Gulley: Two Early Agricultural Teachers in Texas

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The death, on September 18, 1945, in Oklahoma City, of Professor George W. Curtis, removed the last of the pioneer teachers of scientific agriculture at early Texas Agricultural and Mechanical College. Professor Curtis' term of service extended over a decade—from 1883 to 1893. He was the third professor of agriculture in the history of the College (having been preceded by Carlisle P. B. Martin and Charles



G. W. Curtis (1860-1945) [1885]

C. Georgeson), and second Director (1890-93) of the Texas Agricultural Experiment Station. With him was closely associated as first Director of the Texas Station, Frank Arthur Gulley (1851-1938), graduate (1880) of the Michigan Agricultural College. Professor Gulley came to Texas from the

Mississippi Agricultural College, where for eight years he had done excellent work as the first professor of agriculture, and superintendent of the experimental farm. Gulley left Texas A. & M. College in 1890, after two years of service, in one of the periodic "clean-outs" of the College; Curtis left Texas in 1893 to enter the banking field in Louisiana. Both were men of ability and promise; neither one developed his potentialities after leaving Texas; and one here finds illustrated again the destructive effect of the isolation, scanty equipment, lack of competent assistance, and inadequate financial support, that have so often marred the careers of our imported educational leaders in the State.

The Rev. Carlisle P. B. Martin (1814-1908) was the first "Professor of Practical Agriculture, Chemistry, and the Natural Sciences" at Texas A. & M. College.¹ He came at the beginning, with the presidency of Thomas S. Gathright (1876-79), and left at the close of the Gathright administration. His was an interesting, intelligent, vigorous personality, but he made an indifferent head for the work in agriculture. It was inevitable that he should have left the College at the practical dismissal of Gathright's entire faculty in 1879.

The second professor of agriculture at Texas A. & M. College was Charles C. Georgeson (1851-1931), a graduate (1878) of Michigan Agricultural College.² He came to Texas at the opening of the John G. James administration, and left the institution with James's departure in 1883. Georgeson was professor of agriculture at the Imperial University of Tokyo (1885-89), and at the Kansas State College (1890-

¹Martin, Rev. Carlisle P. B. (1814-1908), "Professor of Practical Agriculture, Chemistry, and Natural Sciences," Texas A. & M. College, 1876-79, was born at Hampton, Oneida County, N. Y. He later went to Georgia, and was licensed (1842) and later ordained, by the Hopewell [Crawford County] Presbytery in Georgia; minister and teacher in Georgia (1842-68); teacher and supply in Missouri (1870-73); Presbyterian minister at Huntsville, Texas (1874); appointed professor in Austin College (declined) 1874; teacher and supply in Texas as follows: Willis (1875-76), Bryan and College Station, professor (1876-79); Waverly and Willis (1881-89), professor at University of Nacogdoches (1889-90); no address (1891-95.) Resided in Memphis, Tenn. (1896-1902), infirm, Waverly, Texas (1903-06), infirm, Memphis, Tenn. (1907-08), died there, Dec. 22, 1908. LL.D., University of Nacogdoches, 1888. Correspondent of the U.S. Entomological Commission, 1877, his communications being dated from Huntsville (where he had, at least as late as 1883/84, a farm of 150 acres). An elderly woman of Waverly, who knew him well, speaks of him as a "very brilliant Presbyterian minister of Huntsville, well educated, and pleased with himself."

²Georgeson, Charles Christian (1851-1931). For biographical data, see *Who Was Who in America*, 1942, p. 488, and *Dictionary of American Biography*. From 1885 to 1889, Georgeson was professor of agriculture in the College of Agriculture of the Imperial University of Tokyo; and from 1890 to 1897, professor at the Kansas State College. He was famous for his work in Alaska. [For an account of this work, see *Experiment Station Record*, vol. 57, 1927, pp. 701-06.] He was a graduate of Michigan State College in 1878.

97). From 1898 to 1928, he was in charge of the work in Alaska of the U.S. Department of Agriculture. With George-son's departure from Texas in 1883, G. W. Curtis was appointed to take his place; he entered upon his work the following autumn. In 1888, with the establishment of the Texas Agricultural Experiment Station, F. A. Gulley came to Texas (*supra*), and served here for two years, before going to the University of Arizona as dean of the Agricultural College and Director of the Agricultural Experiment Station there (1890-94). As these two men—Curtis and Gulley—were in a sense the founders of scientific agriculture at College Station, I shall briefly deal with their careers, and make certain observations on conditions there, during their tenures at Texas A. & M. College.

George Washington Curtis (1860-1945)

George W. Curtis was born in southeastern Bremer County, near Fairbank, Iowa, on December 11, 1860, and died in Oklahoma City, Okla., September 18, 1945. He was the son of a prosperous farmer, Lyman J. Curtis, and his wife, Jeannette Burnett Curtis. Prepared for college in the Monticello (Iowa) High School, young Curtis took his B.S.A. degree from Iowa State College, Ames, in 1883; and his M.S.A. degree there in 1896.³

Iowa State College, in Curtis's day, had for president the renowned Adonijah S. Welch (1821-89)—he was succeeded in the presidency in 1883 by Seaman A. Knapp, one of the great agricultural educators of America. Curtis got many of his ideas on farm-experimentation and farmers' institutes from Welch, who from 1870 had been preaching both activities in the agricultural colleges of the country. As teachers, Curtis had Charles E. Bessey in botany, Herbert Osborn in zoology and entomology, J. L. Budd in horticulture and forestry, and Dr. Millikan Stalker in veterinary science. It was a notable faculty in any company. The college year at Ames began in February and closed at the end of October, with a few days of vacation in July. This enabled the students to

³The following printed biographical sources on G. W. Curtis may be mentioned: *Iowa State College Graduates. Biographical Directory*, 1939, p. 34; *Rotary News* . . . , Oklahoma City, Okla., Nov. 27, 1944, p. 34, portrait; *Oklahoma City Times*, Sept. 18, 1945; *Oklahoma City Daily Oklahoman*, Sept. 19, 1945; *Experiment Station Record*, vol. 93, 1945, p. 816.

teach school in the winter (as did Curtis), and for the college reduced the cost of heating the college buildings during the winter months.

As stated above, Curtis came to Texas in the fall after his graduation from Iowa State College. He came first as "Professor of Scientific Agriculture and Horticulture" (1883-93); and later became Agriculturist of the Experiment Station (1888-93), and Director of the Station (1890-93). He came at the beginning of the administration of Hardaway Hunt Dinwiddie⁴ (who served as Chairman of the Faculty from 1883 until his death in December, 1887), stayed through the chairmanship (1887-90) of Louis Lowry McInnis, survived the "blow-up" of June, 1890, and served during the first three years of the presidency (1890-98) of Governor Lawrence Sullivan Ross. Curtis, while in Texas, was an active and productive scholar. In 1888, he published at College Station his *Horses, Cattle, Sheep, and Swine*⁵—one of the earliest textbooks on animal husbandry for agricultural students.

While his appointment was to the chair of "Scientific Agriculture and Horticulture", in those days of small things for the College, Curtis found the chair an elastic one. In the *Report* of the College for 1885, Curtis makes the statement that "in addition to the two departments, which the name of the chair indicates, he has also to take charge of and instruct in, as best he may, the Departments of Botany, Zoology, Entomology, and Veterinary Science, including anatomy and medicine. As professor in charge of the department, Agriculture and Horticulture, I have endeavored to perform as much of this extra work as my *ability* and *time* would admit. I may safely assume that no man can be a *specialist* in each one of some half dozen different lines of

⁴Dinwiddie, Hardaway Hunt (1844-87). Professor of chemistry and physics, Texas Military Institute, Austin (?1870-79), professor of chemistry and physics, Texas A. & M. College (1879-87), chairman of faculty there (1883-87.) A fellow student at Virginia Military Institute of John Garland James, second president of Texas A. & M. College, and a member of the famous V.M.I. "New Market Corps." Dinwiddie was graduated (1867) from V.M.I., first in a class of 11 cadets, then for some time served as post adjutant. When James with his two brothers founded the Texas Military Institute, Dinwiddie joined them at Austin; here he remained until James moved his faculty to College Station on his assumption of the presidency of Texas A. & M. College. Dinwiddie was born at Lynchburg, Va., Oct. 25, 1844, and died at College Station, Texas, Dec. 11, 1887. (See William Couper, *The V.M.I. New Market Corps* . . . , 1933, p. 59.)

⁵The first edition of this book was published at Curtis's expense at College Station; the second edition (enlarged from 269 to 343 pages) was published in New York by the Rural Publishing Company in 1893. The book at its best was adopted by 39 agricultural colleges.

work, and I frankly admit that I am no exception to the rule." (p. 23)

By 1889, five new departments had been added to the College since Curtis had come: Veterinary Science, Horticulture and Botany, Drawing, Civil Engineering and Physics, and Experimental Agriculture—the last in connection with the Experiment Station, established under the Hatch Act. F. A. Gulley was named first Director of the Station, with



F. A. Gulley (1851-1938) [1890]

Curtis as Agriculturist. Gulley remained as Director until June, 1890, when he "resigned," and was replaced by Professor Curtis. In turn, Curtis was succeeded (upon his resignation in the spring of 1893)⁶ by J. H. Connell, as Professor of Agriculture and Director of the Experiment Station.

Curtis is said to have started the first farmers' institute in Texas.⁷ He was a tireless investigator, and published ex-

⁶*Bulletin No. 26* (March, 1893) of the Texas Agricultural Experiment Station bears Curtis's name as Director on its masthead; *Bulletin No. 27* (June, 1893) bears that of his successor, J. H. Connell.

⁷*Iowa State College Graduates, Biographical Directory*, 1939, p. 34.

tensively in the early bulletins of the College and Experiment Station. His direction of the Station was competent enough to induce President L. S. Ross, in his first official report (May 27, 1891) to remark on the stimulus the Station's work had proved to be in encouraging thought and discussion, and the promotion of agricultural interests.

One is interested in learning the reasons for Professor Curtis's departure from the College, but so far I have been able to find nothing of a positive nature. Possibly one of the factors was an economic one. Certainly the reason was not incompetence. Curtis's professional training at Iowa State College was the equal of that of his distinguished predecessor, Charles C. Georgeson (no mean compliment), and far surpassed that of his other predecessor in the department. I surmise that the real reason for Curtis' going lay in the continuing unsettled conditions at the agricultural college. This institution had opened in 1876 under very unfavorable conditions, with a faculty ill-trained for real agricultural work. The unfortunate personalities of the first president, Thomas S. Gathright, and his faculty, generated such intestine strife that the Board of Directors of the college was induced in 1879 to request the resignations of the entire faculty, including the president. Of the faculty, McInnis alone was retained in the reorganization. Under a new president, John Garland James (1879-83),⁸ the work took on a more agricultural tinge; but even then was subject to irresponsible, severe, even savage public criticism of the type that is so familiar in Texas. James was a well-trained educator, who had been principal of the Bastrop Academy (1867-69), and superintendent of the Texas Military Institute (after 1870 at Austin) from 1869 to 1879. In 1883, for obscure reasons, another reorganization of Texas A. & M. College took place, with the result that only four of James's faculty were retained. Charles C. Georgeson was lost in this "clean-up"—not greatly to his disadvantage, for in two years, Georgeson was professor of agriculture in the University of Tokyo.

⁸For biographical account of John Garland James (1844-1930), see William Couper, *The V.M.I. New Market Corps . . .*, 1933, s.v., "James." See, also Clarence Ousley, *History of the Agricultural and Mechanical College of Texas*, 1935, pp. 52-56.

Taking their cue from the University of Virginia, and from the just-organizing University of Texas, the Board of Directors abolished the office of president, and made H. H. Dinwiddie (professor of chemistry and physics under President James) Chairman of the Faculty. This office he retained until his death, when he was succeeded by L. L. McInnis (*supra*).

In 1890, after a tempestuous year, the Board of Directors again had a "housecleaning"—the third in eleven years. Curtis, however, weathered this storm, and was carried over into Governor Ross's presidency. In his unpublished autobiography, as well as in letters written at the time to his family, the later famous zoologist, Herbert S. Jennings of the Johns Hopkins University, tells vividly of the experiences he went through in the week of June, 1890, when the Board of Directors sat at College Station, "and pretty well cleaned out the place." Young Jennings, as Assistant Professor of Botany and Horticulture at \$600 a year, was planning to take his degree at College Station; the failure to reappoint him was (as Jennings says in his autobiography) "of course, a great piece of good fortune to me, though at the time not clearly recognizable as such." He went back to Illinois, to the University of Michigan, to Harvard, and so out into the world.

President James, after his release from the College, entered the banking field. Curtis also left the field of agricultural-college teaching after his departure from the College. He was for several years cashier of the Washington State Bank at Washington, St. Landry Parish, Louisiana (c. 1893-96). In 1897 he was auditor for the Chicago, Oklahoma, and Gulf Railroad at McAlester, Oklahoma; from 1899 to 1902, he was secretary-treasurer of a wholesale grocery at Weatherford, Texas; in 1903, he was special agent of the U. S. Department of Agriculture, resident in McKinney, Texas; from 1904 to 1908, manager of the Burrus Mill & Elevator Company at Fort Worth; and from 1908 until at least 1912, manager of the Oklahoma City Mill & Elevator Company at Oklahoma City. At various times he was president of the Fort Worth Manufacturers' League, president

and manager of the Plano (Texas) Milling Company, and in 1912 was a member of the finance committee of the Southwestern Millers' League. His career for the last years of his life was that of grainman and miller.

Frank Arthur Gulley (1851-1938)

F. A. Gulley, son of Alfred Buck and Sophia Augusta (Abell) Gulley, was born at Dearborn, Michigan, April 24, 1850, and died there August 26, 1938. His father, a farmer and gardener of high rank at Dearborn, had been a member of the Michigan legislature in 1851, professor of practical agriculture at "Michigan Agricultural College" (now Michigan State College) in 1875-76, and superintendent of the college farm and gardens (January, 1876 to November, 1877).⁹ Alfred B. Gully, the father, possessed but a common-school education. He was, however, devoted to the cause of agricultural education; four of his sons were graduated from the Michigan Agricultural College in the twelve years from 1868 to 1880. Frank A. Gulley, the youngest, was graduated in 1880, with the degree of B.S.; and three years later took his M.S. degree from the same institution.

The Michigan Agricultural College, first of its kind in the United States, had in Gulley's day many professors of great distinction.¹⁰ Gulley came to the College in the presidency (1862-84) of Theophilus Capen Abbot. In his freshman year, Gulley studied agriculture under his father and Charles Lee Ingersoll, and botany under William James Beal (a brilliant teacher, and former student of Agassiz at Harvard); in the second year, more botany and horticulture under Beal; in his junior year, physiology under Albert John Cook; and in his senior year, zoology under Cook, and agriculture under Samuel Johnson, Alfred Buck Gulley's successor. Frank also studied chemistry under Robert Clark Kedzie ("father of the beet-sugar industry of Michigan"), English literature under George Thompson Fairchild (president of Kansas State College, 1879-97), and mental philosophy and logic under President Abbot. Of Gulley's teachers, Beal was probably the greatest scholar; he published several books, and over 1200 scientific papers.¹¹

⁹W. J. Beal, *History of the Michigan Agricultural College* . . . , 1915, p. 415.

¹⁰*Ibid.*, *passim*.

¹¹*Dictionary of American Biography*, s.v. "Beal."

Gulley seems to have been a gifted student; and immediately upon graduation was appointed by President Stephen D. Lee, acting-professor of "scientific and practical agriculture and horticulture" at the newly-established Mississippi Agricultural College. He was advanced to a full professorship the next year.¹² His work at Mississippi included agriculture, horticulture, anatomy and physiology, veterinary science, entomology, botany, and zoology. He also had to teach agriculture to preparatory students. From 1882, he added to these duties those of superintendent of the college farm. Here he made varietal tests of fruits, cotton, corn, grasses and other forage crops; made fertilizer experiments with cotton and corn, and a few feeding experiments with steers, in which cotton seed or cottonseed meal was combined with hay, straw, or silage.¹³ With Dr. John Alva Myers, the college chemist, he also made chemical tests of agricultural materials. These early experiments (1883-88) were made on the college farm, under Gulley's charge (there was no Experiment Station under the Hatch Act at the College until 1888).

While at Mississippi State College, Professor Gulley took part in many activities: he became secretary of the local Grange, and contributed articles to the [local] *Southern Livestock Journal* (on cultivation of corn, grasses, other forage plants, and on developing the livestock and dairying industries in the State.)¹⁴ From at least May 11, 1882 to February 21, 1884, Gulley was listed as one of the three contributing editors of the journal; and was editor of its "Beef Cattle Department" for several years, beginning with 1882. In 1884, at the first annual meeting of the Gulf States Devon Breeders' Association, Gulley was elected vice-president for the ensuing year.

In 1881, his old teacher at Michigan Agricultural College, William James Beal, in seeking to divide the the work of his department, tried to secure Gulley for the work in horti-

¹²For accounts of Gulley's college-status, see First to Eighth Annual Catalogues of the Mississippi Agricultural College, and the Biennial Reports of the College for 1886-1887 and 1888-1889.

¹³See A. C. True, "A History of Agricultural Education in the United States..." (U.S.D.A., *Misc. Publ. No. 36*, 1929, pp. 164-65); also his "A History of Agricultural Experimentation and Research in the United States, 1785-1925" (U.S.D.A., *Misc. Publ. No. 251*, 1937, p. 114.)

¹⁴See *Southern Livestock Journal*, of following dates for Gulley papers and notes: 4Ag81, 5Ja82, 9F82, 9Mr82, 12O82. [My file incomplete.]

culture at that college. Gulley had, however, become enamored of his work in Mississippi and declined the offer¹⁵—an act which he doubtless deeply regretted later.

At the suggestion of President S. D. Lee, Gulley in 1887 prepared a simple textbook on agriculture,¹⁶ for use in the preparatory department of the College and the high schools of the State. This work was of course very elementary; its purpose and content being pitched at a popular level.¹⁷

On February 21, 1888, Gulley (having received offer of an annual salary of \$3000 as Director of the newly-established Texas Agricultural Experiment Station) resigned his position at the Mississippi Agricultural College and moved to Texas.¹⁸

At the Texas Agricultural Experiment Station he continued experimental work on the same general plan adopted at the Mississippi Agricultural College. He also extended his studies to cattle-feeding. This work materialized later in a brief treatise on silage crops and cattle-feeding. While still at Texas, he became interested in, and began a study of, the chemical composition and methods of cultivation of "canaigre" (*Rumex hymenosepalus* Torr.), a fleshy-rooted plant of the dock family, indigenous to Texas and the other states of the southwestern United States. This plant had been used for many years by Mexicans and Indians in the tanning of leather. After he went to the University of Arizona (1890), Gulley (with two of his colleagues, C. B. Collingwood and J. W. Tuomey—former fellow-students at Michigan Agricultural College) worked on the chemistry and commercial growing of canaigre. This work resulted in several bulletins

¹⁵*Southern Livestock Journal*, October 12, 1882.

¹⁶F. A. Gulley, *First Lessons in Agriculture*, Starkville, Miss., 1887; second edn., rev. & enl., New York, The Rural Publishing Company, 1892.

¹⁷From the President's *Biennial Report*, Mississippi Agricultural College, for 1886 and 1887: "The Board of Trustees directed the President to have prepared a suitable text book to meet the wants of students in the preparatory class, and also suitable to be introduced into the common schools of the State. The book was intended to meet the wants of the large class who can never receive a college education, or be thorough in the sciences underlying agriculture. Prof. Gully [*sic*] has prepared a text book of about one hundred pages, admirably arranged in chapters and divisions and devoid of scientific and technical phrases. It has been prepared from the standpoint of a farmer, rather than from that of a scientist. . . . It is in my judgment the best book of the kind that I have ever seen, and should be introduced into the common schools, and find a way into the homes of all farmers."

¹⁸The Eighth Annual Catalogue of Mississippi Agricultural College gives date of resignation; the Biennial Report of the President (1888-1889) states Gulley's annual salary (promised) at Texas A. & M. College.

and other publications.¹⁹ In the year Gulley left Arizona (1894) he published an important paper, "Canaigre, its cultivation and preparation for the market" in *Agricultural Science* (of which he was a contributing editor).

As I have said on page 7, the Board of Directors of Texas A. & M. College, at their June, 1890 meeting, failed to reappoint Professor Gulley and several of his colleagues, among them, Thomas L. Brunk (graduate of Cornell, and professor of horticulture), Herbert Spencer Jennings, and a considerable number of other members of the Faculty. On or about August 12, 1890, the Board of Regents of the University of Arizona made Gulley Professor of Agriculture and Director of the Agricultural Experiment Station. But (as it turned out) the position was fraught with great difficulties and discouragements—one which called for self-sacrifice beyond the easy comprehension of present-day men of science. Miss Estelle Lutrell, consulting librarian, and professor of bibliography at the University of Arizona, in her semi-centennial account (1935) of the establishment of the University, says:

... Busy days followed the arrival of Mr. Gulley in September, 1890. The grounds covered with creosote brush and surrounded with a barbed wire fence, presented a forbidding appearance. Old Main standing in solitude and still unfinished challenged his courage. Water, though abundant, was about one hundred feet below the surface. Mr. Gulley had a well sunk through the limestone to water level, bringing the water up by means of a steam pump, fueled with mesquite wood. The university building was equipped for experimental work; a faculty assembled; a curriculum planned; the cottages for professors' homes designed, and studies on irrigation and range conditions instituted. When the Board of Regents, on October 19, 1890, formally established the School of Agriculture and the School of Mines, Mr. Gulley was asked to select someone to head the latter. After looking over the field, he recommended Dr. Theodore B. Comstock, a graduate of Cornell, with a distinguished record as mining engineer and geologist. . . .

Heroic efforts were made to be ready in the fall of 1891 for the arrival of the first students. On the 26th of September, as recorded in the faculty minutes, seven were registered in the preparatory course and three as freshmen—ages thirteen to sixteen. Old Main was all astir. Carpenters were installing partitions of cloth fastened to wooden uprights to divide the space into classrooms, living rooms for the faculty, a dining room, and servants' quarters. . . . Of the thirty-one students who registered the first year only six were of college rank. It at once became apparent that the first educational need was preparatory training, and the efforts of

¹⁹Chief publications on canaigre by Gulley are as follows: "Canaigre" (Ariz. Agr. Expt. Sta., *Bulletin No. 5*, April, 1892); "Canaigre" [with C. B. Collingwood and J. W. Tuomey], (*ibid.*, *Bulletin No. 7*, Feb., 1893): "Canaigre, its cultivation and preparation for market" (*Agricultural Science*, vol. 8, 1894, pp. 320-28.)

the faculty were diverted largely from their respective specialties and centered upon creating students fitted for college work. . . . That the institution should have continued to operate throughout these years of difficult pioneering is a tribute . . . to a faculty willing to turn their faces away from positions in older and richer communities, where the same amount of individual effort would have brought higher academic recognition and more stable rewards.

Upon the arrival of Dr. Comstock in the fall of 1891, it was arranged that Mr. Gulley, as Dean of Agriculture, and Dr. Comstock, as Director of the School of Mines, should have equal rank, as well as equal responsibility for administrative policies. The plan remained in force until June, 1893, when Dr. Comstock was made President of the Faculty. Later, when discordant elements which had been gradually accumulating, caused a complete break, Dr. Comstock, who was greatly in favor with Governor L. C. Hughes, succeeded in placing Mr. Gulley in such an unfavorable light that in May, 1894, the office of Director of Experiment Stations was abolished and Mr. Gulley forced out. At the same time Dr. Comstock was made President of the University, the first appointee upon whom that title was officially conferred. He remained in office scarcely two years.

Thus did Theodore B. Comstock reward his benefactor.

During these difficult years at the University of Arizona, Gulley published a number of papers dealing with his work on canaigre: two of them as bulletins of the Arizona Agricultural Experiment Station, and the paper in *Agricultural Science*, mentioned above. After his departure from the University, Professor Gulley moved to Phoenix, Arizona, to become superintendent of the Anglo-American Canaigre Company there. In the next two years he visited Europe in the interest of his company. The tanning material produced was excellent, but the cultivation, preparation, and marketing of the canaigre roots offered so many difficulties that about 1896 the venture failed.

Mr. Gulley then for several years managed an extensive chick hatchery owned by Alexander Meston, a few miles out of Saint Louis. He lived here (and at Alton, Illinois, where he managed an estate) for some twenty-one years. About 1927 (when his eyesight began to fail him), he returned to Dearborn, Michigan, to make his home with his sister. He became totally blind nearly a year before his death, but retained his mental faculties almost to the last.²⁰

One of my correspondents, in writing of Gulley as he knew him at one of the agricultural colleges, speaks of him

²⁰I am greatly indebted to Mrs. Mina Gulley Ives, Professor Gulley's only surviving sister (in whose home he spent his last years) for use of the contemporary [1890] portrait of Professor Gulley, and for information of his life after 1894. Because of numerous errors, I have not used Henry Haigh's obituary note (*Michigan State College Record*, December, 1938, p. 18.)

as "a colorless personality, with little force or energy." Superficially, this may have been true, for conditions at the frontier college were enough to sap the energy and destroy the vitality of a Paracelsus. Certainly, his record at Mississippi State College and at the University of Arizona would not bear out such an estimate. To me, these two men—Curtis and Gulley, pioneers of agricultural teaching in Texas—were casualties to the indescribable conditions then obtaining in some of our pioneer educational institutions.

A Gage Laboratory for Southern Methodist University

E. H. Flath

On March 1, 1946, Major General G. M. Barnes, Chief of Research and Development for the Army Ordnance Department, and President Umphrey Lee of Southern Methodist University, announced plans for the establishment of a precision gage laboratory in the School of Engineering. The decision to install the laboratory was made at the request of the Lone Star Post of the Army Ordnance Association, membership of which includes executives and engineers for a large number of industrial firms in the Dallas area.

Industries in Texas have for many years felt the need of a standards-laboratory for checking the precision gages required in mass production of interchangeable parts. In discussing plans for the laboratory, General Barnes said: "We discovered during World War I that it is not production lines that make mass production, it is *gages*, the instruments for measuring accurately the thousands of machined parts that must fit together." During World War II the Ordnance Department acquired instruments for checking gages in Texas plants and saved time which would have been lost by sending them to far-distant laboratories.

The Army through its St. Louis Ordnance District, commanded by Colonel H. C. Morgan, is now turning over to the School of Engineering a large amount of costly technical equipment. This will be used for checking the master-gages of industry in this area, and in the training of engineering