Preface

In 1946, the year in which I became Head of the Department of Mechanical Engineering, the student population was enormous and the Department was ill-prepared to handle the load. Budget, space, equipment, and staff recruitment occupied all of my time. Among the old files and in the libraries and desks of several deceased staff members a number of publications and letters were uncovered that held the promise of historical interest, but there was no time to do other than put them in a safe place against the day when I might devote a full-scale effort to correlating the information and reducing it to an authentic history of the Department.

That day is here. What follows is not a history in the time sense, but a factual and chronological listing of names, numbers and events into which I plan eventually to build more of the personalities of the people and significance of the events before they are lost completely.

The Beginning

It all started in the Legislature of Iowa in 1856, when some of its members recognized the need for the equivalent of research and education in agriculture - an industry that the ten-year old state was bountifully equipped to develop. So, in 1857-58 an act to establish a college and model farm was passed, Trustees were appointed, money was appropriated,
subscriptions and gifts were received and the Trustees pur-
chased a 648 acre farm in Story County. The Iowa Agricultural
College and Model Farm was founded. Some legislators tried,
unsuccessfully, to repeal the Act in 1860. In 1861, the
original Farm House and Cattle Barn were built; however, further
activity was suspended as the Nation embarked on a four-year
Civil War.

In 1862, the Federal Government passed and Lincoln signed
the Morrill Act, with its much broader objectives of pro-
viding education not only for Agriculture but also for the
less well defined "Mechanic Arts". In September, 1862, the
Iowa Legislature accepted the provisions of the Morrill Act.

Some cross-state rivalry ensued. The State University
at Iowa City, founded in 1847, but without schools of agri-
culture or engineering, wanted to integrate the existing
Agricultural College, and reap the benefit of the land grants.
In 1864, the Legislature awarded the grant to the Agricultural
College, and the Iowa State College of Agriculture and
Mechanic Arts was born.

It is interesting to speculate on the original grant of
240,000 acres of land. Valued at less than a million dollars
in 1864 that same land today would probably sell for at least
three hundred million dollars. Some of the enhancement of
its value must be credited to work of the scientists, agri-
culturists, and engineers who studied in the classrooms and
worked in the laboratories of the College.
In 1865 the Civil War ended, and the organization of the College got under way. A committee visited other technical schools, and in 1868, A. S. Welch was appointed President. A building, Old Main, was built, a preparatory class of seventy enrolled in October 1868, and on March 17, 1869, the first collegiate class of 136 men and 37 women entered.

**The Early Years**

In 1859, when the Agricultural College and Farm was being organized, the plan contemplated that four Professors would form the teaching and research staff; one in Mathematics, one in Natural Philosophy or Physics, one in Zoology, and one in Botany. In 1868, President Welch started the college with three: Professor George W. Jones, from Cornell, who was responsible for Mathematics and "Mechanic Arts", Professor A. E. Foote, from Michigan, in Chemistry, and Professor N. S. Townshend in Agriculture. By 1871, Jones, for whom the residence known as "The Maples" was built, had found a second staff member, Professor W. A. Anthony, from Yale, to teach Physics and Mechanical Arts. Jones was apparently a very versatile person; he served as president for five months until Welch arrived in March of 1869. He taught mathematics, civil engineering, and architecture.

Two "courses" were available to students at the opening of the college in 1869. Appropriately, one was termed "Agriculture" and the other "Mechanical Arts". The subjects included in these "courses" for the first two years were very nearly the same.
In 1871, the Mechanical Arts course was divided into Mechanical and Civil Engineering.

The curriculum of these first few years was designed to fit the capabilities of the youth of Iowa, many of whom had to attend a preparatory period before being admitted to the four-year course in mechanical engineering. Mathematics began with algebra and progressed to differential and integral calculus in five semesters. Two semesters of chemistry and three of physics were distributed from the freshman year through the junior year. There were six semesters of drawing but strength of materials didn't appear until the final semester. Every semester included one or more courses in English, literature or what are now termed social sciences and humanities.

The first graduating class in 1872 listed six engineers, four in Civil and two in Mechanical. The diploma bearing serial No. 1 was awarded to Edgar W. Stanton, a mechanical engineer and valedictorian of the class of 1872.

**Buildings**

The first building on the campus, aside from the Farm House and barns built in 1859, was the center section of Main, completed in 1868. It incorporated gas light; the water supply came from a well complete with windmill. In 1870 the first part of a chemistry building was built on the site now occupied by Pearson Hall, north of the hospital. To the west of the chemistry building a frame "workshop" was constructed. A physics and chemistry laboratory addition was built onto the chemistry building in 1875. All of the
"Mechanic Arts" classes were conducted in the workshop and the chemistry building until the first Engineering Hall — now the Engineering Mechanics Laboratory building — was built in 1883 and 1884. The frame workshop was moved to a point north of the present M.E. laboratory building where it continued to serve as a foundry until 1897.

Mechanical Engineering occupied a large portion of the new Engineering Hall. Drafting rooms, a machine shop, and the first "dynamo", a steam engine, belt-driven d.c. generator were in the building, and electric lights replaced the gas lights in the several college buildings. M.E. students were employed to operate the boiler-engine-dynamo complex, and to shut it down at 10:30 p.m. In 1891 a separate building was constructed and the fledgling power plant was moved out of Engineering Hall.
Unaccountably, neither Jones nor Foote was reelected in 1872 and both left the College at the end of that year. Anthony left in 1872 also, the year that E. W. Stanton was appointed Instructor. Jones was succeeded by A. H. Porter, a Dartmouth graduate who headed the mathematics staff and taught civil engineering. Prof. Alexander Thompson, a graduate of the University of Michigan, became the mechanical engineering professor in 1872 and head in 1873. He held that position until 1884 when he resigned to enter an industrial firm. His successor was N. Bassett from Worcester who was apparently not an effective professor and resigned upon request in 1887. He was replaced by C. W. Scribner who was in charge of the Department for the next five years.

These first twenty years were an uncertain and sometimes turbulent period. Five different persons had responsibility for development of the mechanical engineering program, but the results achieved were short of unqualified success. Jones was a mathematician and obviously not dedicated to engineering, although he taught courses related to civil engineering. Anthony, from Yale, probably well grounded in mathematics and "natural philosophy" must have lacked enthusiasm for his challenge. Both left for reasons not recorded. Jones later had a long and distinguished career at Cornell in mathematics. He was author of several books in mathematics, one as late as 1908.

Prof. Alexander Thompson was in charge for twelve years, but left just as there began to be better provision for space
and equipment. His successor, N. Bassett was apparently not well qualified; he was charged with ineffectiveness and left after three years. C. W. Scribner followed him for five years and was replaced by C. W. Bissell from Cornell in 1892.

During these twenty years, a total of 113 persons were graduated in the "Mechanic Arts" area, 83 were civil engineers, only 30 were mechanical, and in nine of the twenty years, no mechanical engineer was graduated.
The entry of a number of young women to the Mechanical Engineering curriculum during the past three years is a new trend, but it does not set a precedent. In 1904, Florence Kimball of Council Bluffs enrolled in M.E. and she was graduated in 1908. Following her graduation she worked with her father in his manufacturing and real estate businesses until 1911 when she was married to D. B. Stoufer, also a 1908 graduate in M.E. Her two sons are I.S.U. graduates, Dick Stoufer, E.E., 1935, and Bill, M.E. 1937. Her daughter, Lucy Stoufer Graeme, graduated in 1946 with a major in Household Equipment, and two children of Mrs. Graeme have attended or are attending I.S.U. Florence Kimball Stoufer still resides in Council Bluffs and still is active in the management of her real estate properties.

One other woman has received a B.S. Degree in Mechanical Engineering, Karen Siddall in 1963. She has had a career in mechanical engineering, is now Mrs. Karen Siddall Dahlerup and resides in Minnetonka, Minnesota.

Engineers are frequently criticized because they do not participate actively in community, state or national government. But two graduates of the M.E. Department, Glenn Brockett, 1935 and T. Cooper Evans, 1951, have represented their districts in the 66th Session of the Iowa Legislature and have been reelected for the 67th Session. Brockett is retired from his former position as Vice-President, Sales, Fisher Controls in Marshalltown. Evans is active in the
management of a number of enterprises in Grundy Center.

Allen Acheson, 1951, former President of Black & Veatch, International, has recently become a partner in the Black & Veatch firm of Consulting Engineers with headquarters in Kansas City.

Richard Stanley, 1955, President of Stanley Consultants of Muscatine, Iowa is currently President of the American Consulting Engineers Council. In 1973 Dick was President of the Iowa Engineering Society.

Undoubtedly many of you are supporters of the Alumni Achievement Fund. Some may not know that for many years it has been possible to designate that your gift be allocated to the Mechanical Engineering Department, Fund No. C-60. "Pete" Hilstron, 1934, established the fund in the early 1950's, and has been a consistent supporter since. Money from the fund is used for purposes for which appropriated funds are not available.

The H. M. Black Scholarship Fund, established in 1972 has grown to the point that earnings from the fund now support two tuition scholarships.