**George Edgar Ladd 6thDirector 1897-1907**

Born Haverhill, Massachusetts on July 23, 1864

Died Dec 23, 1940 in Chevy, Chase Maryland

Graduated from High School in Bradford, Mass in 1882. Was tutored in Greek and admitted to Harvard as a special student in 1883. Graduated from Harvard in 1887 with a degree of A.B. and then received an A.M. degree in 1888 and the Ph.D degree in 1894. From 1892-1894 hee was Assistant in Geology at Harvard. In 1894 he went to Europe, where he took advanced work at the University of Munich. He worked at three different geological surveys from 1887 to 1892 in Texas, Missouri, and Atlanta.

Married to Miss Mary Oceana Hammond on May 24, 1889. He had seven children

Although he did not have a degree in Mining or Metallurgy, he was offered the job as Director of MSM Sept 20, 1897.

After leaving MSM in 1907, he served as President of the Oklahoma School of Mines for five years. Then he was elected President of the New Mexico college of Agriculture and Mechanic Arts and served for four years until 1917. He then took a job with the United States Office of Public Roads as an economic geologist until he retired. He also served as the Superintendent of the Massachusetts Mineral and Stone Exhibit at the 1893 Chicago World’s Fair. He held the same position at the St. Louis World’s Fair in 1904 for Missouri.

As a result of an article he wrote in 1898 titled *“Geological Phenomena, Resulting From Surface Tension of Water”*, Ladd is designated the Father of the subject of Soil Mechanics.

Departmental Changes – 1897-98 – Civil Engineering dept separated from Mineral and Metallurgy. English was also separated from Modern Languages and Shopwork and Drawing was set up.

1898-99 Ladd became a Professor of Mining and Geology and Chair of Mining – Dept of Metallurgy became a separate department with Professor Frederick Draper as department head.

Up to 1903 departments of Mining and Geology; and Metallurgy and Ore Dressing.

Norwood Hall completed in 1903 and departments were rearranged because of more room. Now **Geology and Minerology; Mining and Ore Dressing; and Metallurgy**. Ladd stays on as Professor and head of Geology & Mineralogy. Professor James Clark Draper, as Assistant Professor of Mining Engineering, became the head of the latter department the 1903-04 year. The 1903-04 year the Dept of Metallurgy had no active head – Dr. Heinrich O. Hofman, was special lecturer in Metallurgy. Dr. Robert H. Richards was hired to lecture on Ore Dressing, 1904-05 year Professor William Warren Garrett – Professor of Chemistry and Metallurgy. Division of “Ore Dressing” remained a subdivision of the Dept of Mining Eng. Many professors in these departments during these years came from M.I.T.

**Engineering Drawing** – (Graphics) – 1871 own dept from 1873 – head was Col James W. Abert, merged with Dept of Engineering 1877-1897. From 1897-98 own dept – shopwork and drawing. Prof Garrett left in 1898 so from 1898-1903 Shopwork/Drawing merged with Civil Engineering. Drawing and Descriptive Geometry stayed in CE until 1907, Shopwork, the forerunner of Mechanical Engineering, was placed in charge of Prof Joseph Henry Bowen 1902-03 and seems to have been a separate dept from CE placed in new Mechanical Hall. Mechanical Eng courses were taught at MSM from 1873, but in Dept of Eng. Degree of Mech Eng first given in 1889-90.

**Dr. Ladd Administration - the Depts. were Mathematics; Chemistry; Physics (and Electrical Eng); Civil Eng; Mining Eng and Ore Dressing; Geology and Mineralogy; Metallurgy; Shop Practice (Mech Eng); Drawing and Designing; English; Modern Languages; The Academic Department; and the Library.**

**Departments Housing and Faculty:**

**Mathematics –** 2nd floor Rolla Bldg – Prof. George R. Dean -1897 – 1937 – 2 assts – Frederic Cowles 1900-02; Leon Garrett 1902-07

**Chemistry –** Chemistry Laboratory Bldg Dr. Eugene Allen Chair of Chemistry 1895 – 1900; assts George Dean 1897-98; George Clark 1899-1900; Edwin Perkins; 1900 Victor H. Gottschalk Prof of Chem head of dept throughout Ladd admin; Peter Fireman 1901-02; Herbert Hanley instructor in Chemistry 1900-01; Albert Wilson 1901-03; Robert Thompson 1902-06; William Garrett Prof of Chem and Metallurgy 1904-05

**Physics-** 3rd floor of Rolla Bldg**.-** 1894-1900 Prof Arthur Timmerman, head of dept; Dr. Austin McRae head 1900-20; asst 1900-01 Leon Garrett; 1901-03 Maurice Simpson; 1905-06 Damon Dunkin; and 1906-07 Eldon Cook

**Civil Engineering –** 1st Rolla Bldg thenChem Bldg, thenPower Plant Bldg, then finally placed in Norwood Hall after its completion in 1903 – Prof E.G. Harris head 1897-1931 (except for 1901-03- Prof Elmer McCaustland and Ira McConnell filled in for these years) Asst – Arthur Conner; Elwyn Clarke; Harry Rex, Royal Webster; Cyrus Minor; Ira Wright; Glen Morgan; Joseph Brown; Charles Hummel; Robert Barton; Wilbur Sheldon; Charles Lintecom; Albert Bartlett and William Perkins.

**Shopwork –** temporary framed “Workshop and Dynamo Lab bldg – Mechanical Hall – Robert Garrett – instructor 1897-98; 1898-1900 Roger Hatchett & Arthur Terrell; 1901-02 Joseph Croswell; 1901-02 James Draper 1902-07 Joseph Bowen; Charles Baker 1905-06; Edward Smith 1906-07; and Clyde Wood 1906-07.

**Drawing and Design (Mechanical Drawing, Descriptive Geometry, Drawing and Graphics, Topographic Mapping, Engineering Designs, Mill, Metallurgical, and Mining Design-** Mechanical Hall – Prof Bowen; Mr. Smith; L. E. Garrett, Prof Harris; Mr. Clarke, Prof Draper, and Prof W. W. Garrett.

**Mining and Ore Dressing – Mining Lab Bldg –** Dr. Ladd Prof of Mining 1897-98 then Prof of Mining and Geology 1898-1907; James Draper Asst 1900-01, 1905-07 Prof of Mining Eng; Lawrence May 1901-02

**Geology and Mineralogy –** Norwood Hall – Dr Ladd; James Draper; Leon Griswold 1903-1907; Assts 0 Alfred Thomas Fr and Frank Wilson 1905-07

**Metallurgy –** Norwood hall – Dr. Ladd, Alexander Forsythe 1897-98; 1898-99 Metallurgy was separated from Mining with Prof Draper as head through 1900; Herman Schulze 1899-1903; William Garrett 1905-06; George Packard 1906-07; Assts: Elmer Heck 1902-05; Andrew Seltzer 1904-07; Alfred Thomas Jr. 1905-06; Edwin Wash 1906-07

**English –** Rolla Bldg – John Scott 1897-1907 (also held post of Secretary to the Faculty)

**Modern Languages –** Rolla Bldg – Paul Wilkins – Chair of Modern Languages 1897-1907

**Academic Department –** Rolla Bldg – Prof George Dean –mathematics, Paul Wilkins and John Scott taught rest of subjects which included English, History, General History, Political Economy, Psychology, Logic, Physical Geography, and Physiology. Academic Degree discontinued as of 1900-01 year

**Library –** Rolla Bldg – List of Librarians from 1871-1907: John Holt Gill 1871-74; Professor V.C. Yantis 1874-78; Professor Edwin Jolley 1878-80; Professor Thomas Thomas 1880-81; Professor Geordie Whitney 1881-84; Professor W. G. Clark 1884-87; Professor E. A. Drake 1887-91; Professor Thomas Rubey 1891-96; Professor Paul Wilkins 1896-99; Miss Maude Mitchell 1899-1900; Mrs. J. D. Carpenter 1900-03; Professor L. E. Garrett 1903-06; Miss Jessie Heller 1906-07.

**Secretaries to the Faculty 1871-1907 :** 1873-74 Prof N. W. Allen; 1874-1882 Prof R. W. Douthat; 1882-84 Prof Geordie Whitney; 1884-87 Prof W. G. Clark; 1887-91 Prof E. A. Drake; 1891-97 Prof Thomas Rubey; 1897-1901 Prof Paul Wilkins; 1901-07 Prof John Scott.

**Curriculum – three term plan of instruction -** 1900 Four year course in General Science – **Mining Eng** – 186 semester hours the first two years of the **Metallurgy-Chemistry** (190 semester hours) course same as Mining Eng course – **Civil Eng** included many courses in Mech Eng and Electrical Eng (176 semester hours) **General Science** – (167 semester hours) **Short Courses in Electricity (**89 semester hours)

**\*\*\*\*\*\*Scan and include pgs 562-564 Dr. Ladd’s writings on conditions at MSM**

**Dr. Ladd seeks friends of MSM to further the curriculum of an “Institute of Technology” and new buildings and equipment to teach the required courses.**

**Relocation of the State Bureau of Geology and Mines (Missouri Geological Survey) to MSM at Rolla from Jefferson City.**

Up to 1893 the Campus was comprised of two tracts of land (1) Railroad Lot No. 39, now known as “Jackling Field” and in those days used for baseball and other school sports and called the “Park” and (2) the original campus bounded by 11th & 13th, Main and State Streets. Four buildings: Chemical Laboratory, Rolla Building, Club House, & Mining Lab.

The ground on which Norwood Hall, Parker Hall, Mining Experiment Station Bldg (Later Fulton Hall) and the Metallurgy Bldg to bring the Campus to 27 acres in 1902. Four Bldgs were added to campus in Ladd administration: Norwood Hall, Mechanical Hall, additions to the Power Plant and the Chemical Laboratory.

During Ladd administration – the St Louis 100th Louisiana Purchase Anniversary World’s Fair 1904 – Missouri Bldg – Missouri’s Mining and Mineral Exhibit (Ladd was superintendent) Ladd was also manager of a mine in Joplin Mo.

Resignation took effect Sept 1, 1907

During his tenure the students had minstrel shows, orchestral concerts, and other student functions – beginning of Rollamo 1907 – 1903 Tossing contest, estimated height of tossing a freshman in the blanket – 20-40 ft. Three fraternities on campus 1903 – Kappa Sigma, Sigma Nu, and Kappa Alpha

**From UM Presidents Annual Report to the Board of Curators 1905 –**

**Director secured Dr. William Warren Garrett – chair and Prof of Metallurgy**

**Mr. Arthur Watson Conner appointed Assistant Prof of Civil Eng**

**Director states that the library is cramped and unsatisfactory quarters in the Rolla Building Legislature only appropriated $1,000 for equipping a new reading room and stack room – wants to move library to Norwood Hall**

**Director states lawns, vines, trees, and shrubs in good shape – City of Rolla has closed the street separating the old campus from the new one on which Norwood Hall was erected. As soon as the road on the west side of our grounds has been put in good condition, it is expected that the city will close the street separating our Athletic Field from the main campus thus bringing all of our property into one tract. In the past the school has depended on its water supply on rain water collected cisterns and from one or two shallow wells – increased enrollment has increased demand for water – have appropriation of $5,000 for water works, deep well! Geological Survey moved to Rolla Building and entire east half of building has been turned over for Survey- School continues to furnish the Survey with heat and light – Students have maintained football and baseball teams, and a track and tennis association – room in the second story of Mechanical Hall is now a gym- class has been organized for regular and systematic exercise - in charge of Mr. F. A. Moore – voluntary service – legislature appropriated $1,000 for gym equipment - Director sees need for $123,00 for a future appropriations – appropriation made $50,000 to come from general revenue fund and $73,000 from collateral inheritance tax fund – to cover maintenance, ore dressing building and mill, furnishings, athletic field work, water works, gym equipment, machinery for shops/labs, new boilers and stacks, equipping new library rooms, library books, sidewalks etc., equipment for laboratories in geology, surveying, mineralogy, and metallurgy.**