

# *Memories From the SEAS Time Capsules*

*The First Decade: 1864-1874*



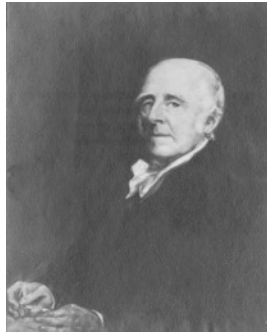
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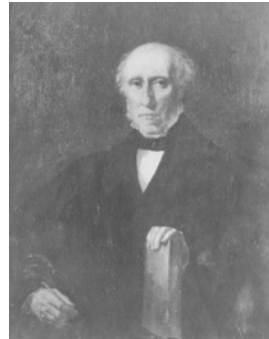
1864-2014

# From the SEAS Time Capsules

## The First Decade: 1864-1874



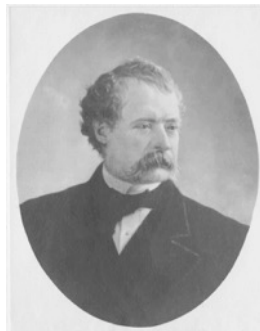
John Stevens, 1768  
Pioneer American mechanical engineer,  
inventor and railway expert



James Renwick, 1807  
Advisor on most engineering  
problems of his time

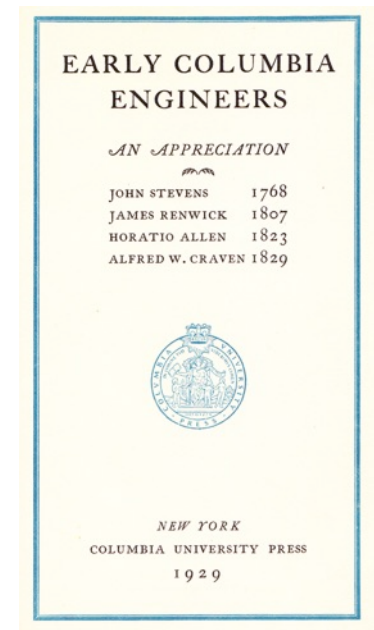


Horatio Allen, 1823  
Imported and operated first  
steam locomotive in America



Alfred W. Craven, 1829  
Chief Engineer of the  
Croton Aqueduct Commission

- Columbia engineers before the Schools of Mines and Engineering.
- From



*Prepared by J. K. Finch, Professor of Civil Engineering, and published by the Columbia University Press for a group of Alumni of the Columbia Engineering Schools, in connection with the One Hundred Seventy-fifth Anniversary of Columbia University, in the City of New York, October, 1929.*



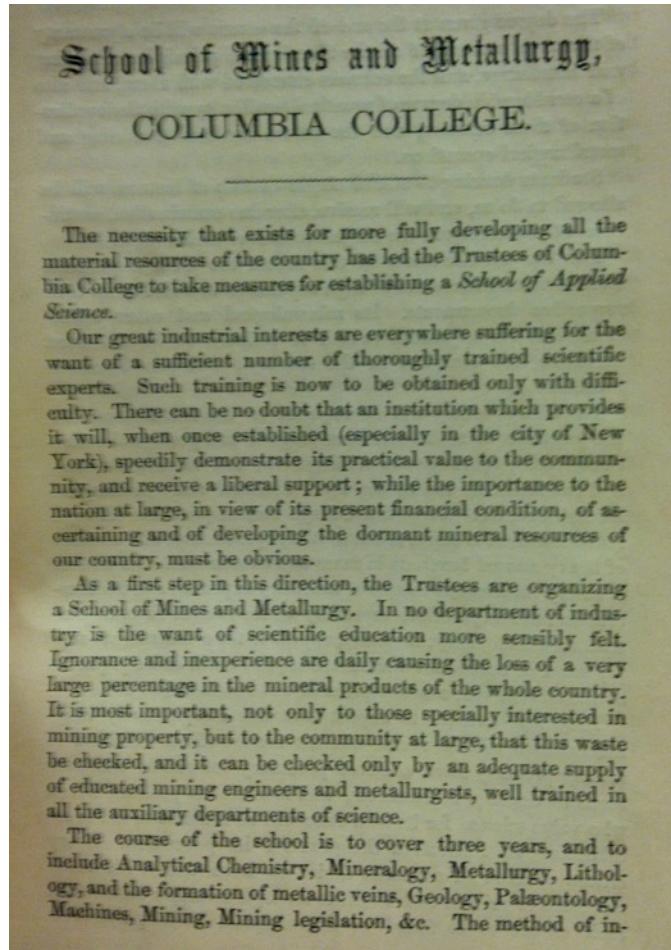
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- Shown, the 1863 Trustee Letter of the Egleston Plan to establish the School of Mines, the predecessor to The Fu Foundation School of Engineering and Applied Science.
- January, 1864 - Thomas Egleston appointed professor of mineralogy and metallurgy.



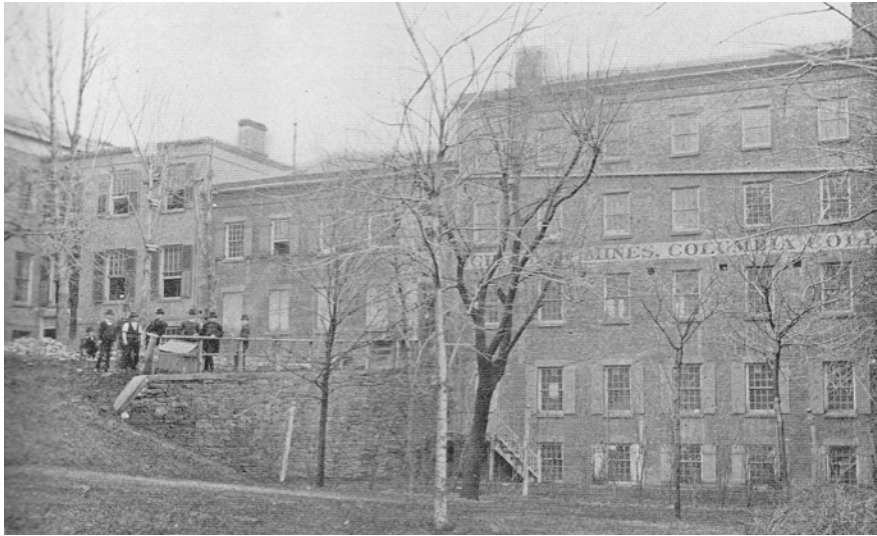
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- Nov. 15, 1864 – Columbia College School of Mines opens in a building on Madison Avenue, with a founding faculty of three
  - Thomas Egleston, Jr.
  - Francis A. Vinton, mining expert and Civil War veteran
  - Charles F. Chandler, chemist and founding Dean
- Shown, *The School of Mines, 1865*, on the Columbia University 49<sup>th</sup> Street campus.



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# *New York Moments*

## *The First Decade: 1864-1874*



- 1864 – New Yorkers hold a torchlight parade for George McClellan, Abraham Lincoln’s opponent in the year’s presidential election.

# From the SEAS Time Capsules

## The First Decade: 1864-1874

**SCHEME OF LECTURES**  
IN THE  
**SCHOOL OF MINES,**  
COLUMBIA COLLEGE,  
New York.  
First Session from November 15, 1864, to May 15, 1865.  
FOR FIRST YEAR STUDENTS.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
10 to 11	*Algebra. Prof. VAN ARMAN.				
11 to 12		Mathematics. Prof. VAN ARMAN.	Analytical Chemistry. Prof. CHANDLER.	Mathematics. Prof. VAN ARMAN.	Mathematics. Prof. VAN ARMAN.
12 to 1	† Physics. Prof. BOON.	Mechanics. Prof. BOON.	* Geometry. Prof. VAN ARMAN.	Stoichiometry. Prof. CHANDLER.	† Mining Surveying. Prof. PEEK.
1 to 2					
2 to 3	Mineralogy. Prof. ELLSTON.	Mineralogy. Prof. ELLSTON.		Descriptive Geometry. Prof. VINTON.	Descriptive Geometry. Prof. VINTON.
3 to 4			Inorganic Chemistry. Prof. JOY.		Inorganic Chemistry. Prof. JOY.
FOR SECOND YEAR STUDENTS.					
10 to 11			Geology. Prof. CHANDLER.	Geology. Prof. CHANDLER.	* Paleontology.
11 to 12	Metallurgy. Prof. ELLSTON.	Metallurgy. Prof. ELLSTON.	Analytical Chemistry. Prof. CHANDLER.		
12 to 1			† Organic Chemistry. Prof. JOY.	Stoichiometry. Prof. CHANDLER.	† Organic Chemistry. Prof. JOY.
1 to 2				Mining Engineering. Prof. VINTON.	Mining Engineering. Prof. VINTON.
2 to 3	Mineralogy. Prof. ELLSTON.	Mineralogy. Prof. ELLSTON.			
3 to 4	† Botany. Prof. TORREY.	† Botany. Prof. TORREY.			
FOR THIRD YEAR STUDENTS.					
10 to 11	* Theory of Veins. Prof. ELLSTON.	* Theory of Veins. Prof. ELLSTON.			
11 to 12	Metallurgy. Prof. ELLSTON.	Metallurgy. Prof. ELLSTON.			
12 to 1					
1 to 2			* Mining Legislation. Prof. CHANDLER.	Mining Engineering. Prof. VINTON.	Mining Engineering. Prof. VINTON.
2 to 3			* Assaying. Prof. CHANDLER.		
3 to 4					

Hours not occupied by Lectures are devoted to Laboratory Practice, under Prof. Chandler and Mr. Foster, or Drawing, under Prof. Vinton.

\* Temporary      † Not given at present      ‡ Commences in February.

- The School of Mines, 1864-1865 “Scheme of Lectures.”



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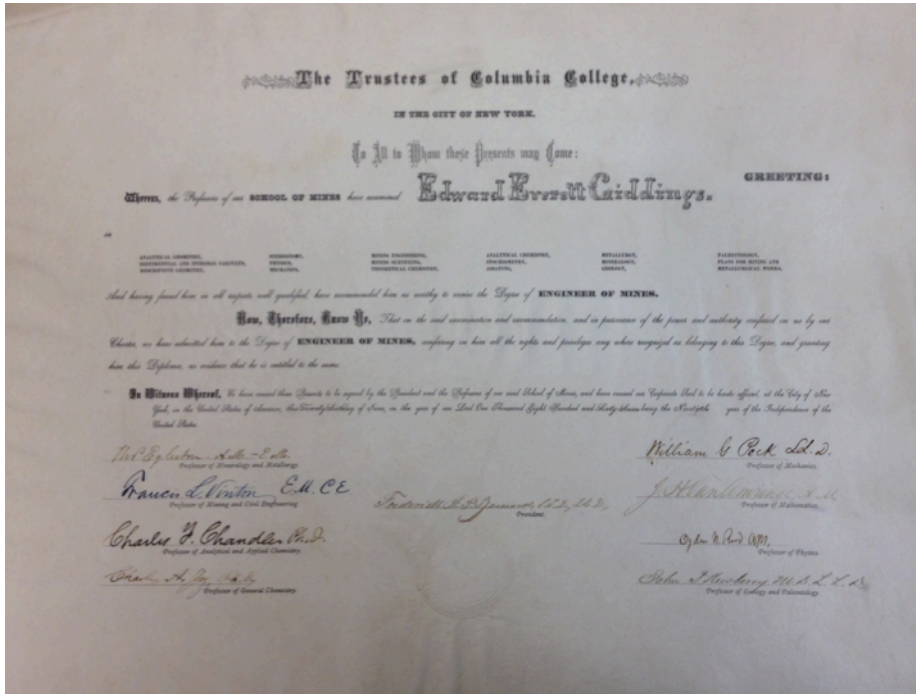


“A Perpetual Fever-Nest,” NYC, circa 1860’s  
Engraved from a photograph by Anthony.

- 1867 – Prof. Charles F. Chandler begins his work with New York City’s Metropolitan Board of Health, monitors food and drugs, provides free vaccinations, ensures the safety of milk supplies, brings clean water into the city, and enacts building codes requiring indoor plumbing.
- 1873 - Named NYC Health Commissioner (to 1883).
- Commissioner Chandler appoints first milk inspector.

# From the SEAS Time Capsules

## The First Decade: 1864-1874



- First E. M. degrees to 13 (or 14) graduates in 1867, John A. Church is first in the class.
- 1867- E. M. degree of Edward Everett Giddings shown.



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# *New York Moments*

## *The First Decade: 1864-1874*



- First elevated railway in New York City opens on July 1, 1868 as the West Side and Yonkers Patent Railway, a cable-hauled line, along Greenwich Street and Ninth Avenue.
- Shown being tested in December 1867.
- This became the IRT Ninth Avenue Line, often called the Ninth Avenue El.



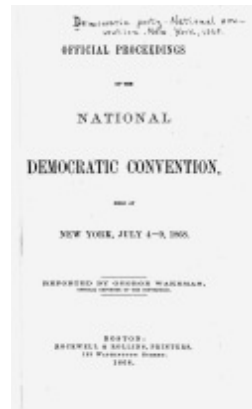
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# New York Moments

## The First Decade: 1864-1874



- July 4-9, 1868 – The Democratic nomination for President takes place in New York City. The lower image shows democrats rallying in Union Square in support of Seymour and other local candidates, October 5, 1868.



# *New York Moments*

## *The First Decade: 1864-1874*



- 1869 - American Museum of Natural History opens, with exhibits of the Museum's collection going on view for the first time in the Central Park Arsenal, the Museum's original home on the eastern side of Central Park.
- 1877 - The Museum's first building opens.



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# *New York Moments*

## *The First Decade: 1864-1874*



- April 13, 1870 - The Metropolitan Museum of Art opens to the public in the Dodworth Building at 681 Fifth Avenue.
- March 30, 1880 - The Museum opens to the public at its current site on Fifth Avenue and 82nd Street.



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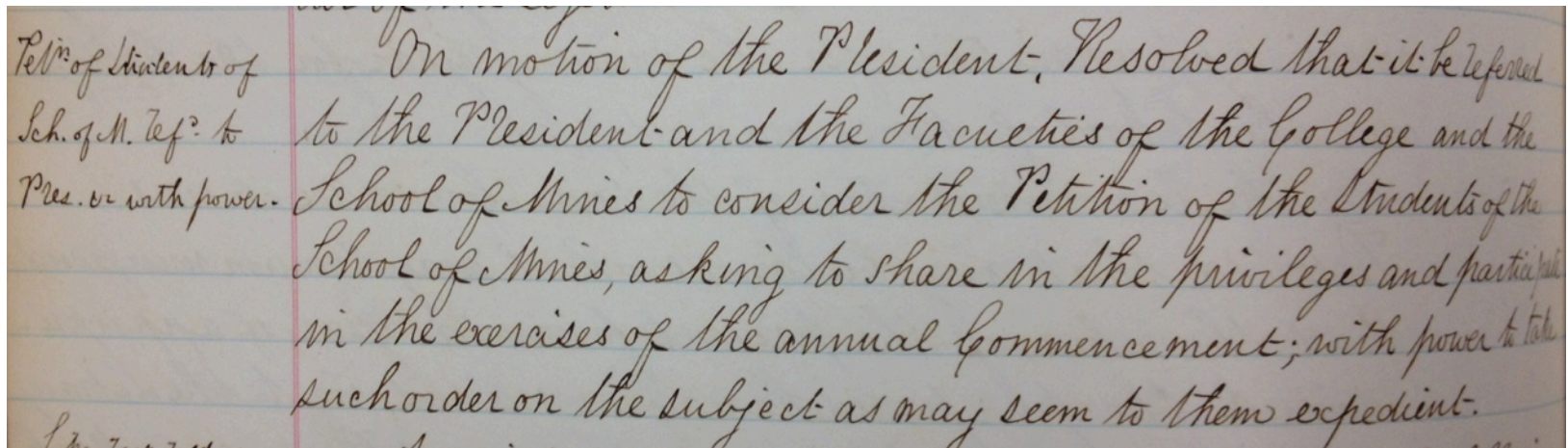
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# From the SEAS Time Capsules

## The First Decade: 1864-1874

- Students petition to trustees in the spring of 1872 for full participation at commencement for Mines.
- On May 6, 1872 the Trustees allow the President and faculty to consider this (original minutes below).
- All seven speaking parts had always gone to College students; now two went to Mines students.



Res. of Students of  
Sch. of M. Ref. to  
Pres. v. with power.

On motion of the President, Resolved that it be referred to the President and the Faculties of the College and the School of Mines to consider the Petition of the Students of the School of Mines, asking to share in the privileges and participate in the exercises of the annual Commencement; with power to take such order on the subject as may seem to them expedient.



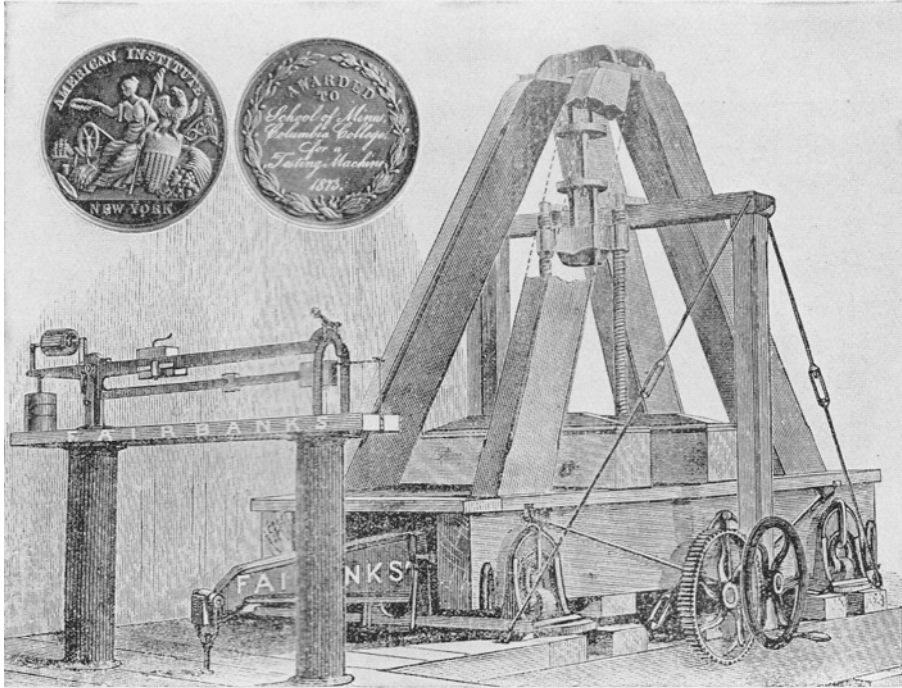
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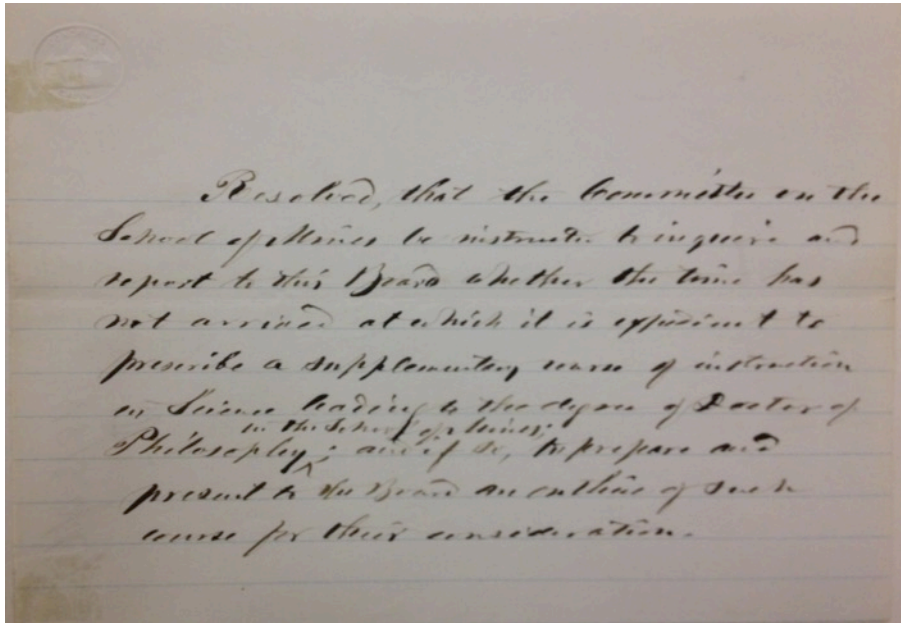
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- Shown, the Old Fairbanks Machine in Mechanical Engineering, with the silver medal it received in 1873.
- It is installed in 1874.
- This marked the beginning of the Columbia Testing Laboratory.

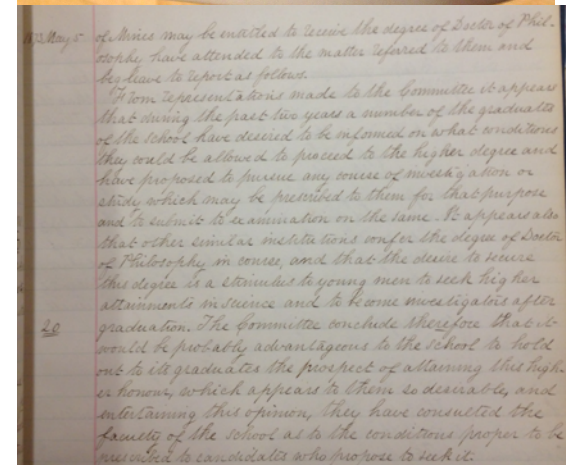
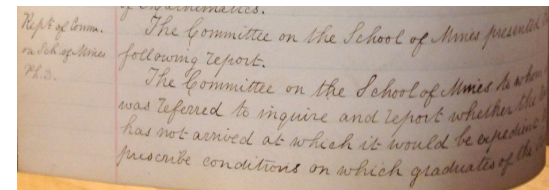
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Resolution of President Frederick A. P. Barnard on April 7, 1873 to allow the School of Mines to grant the Ph.D.

- On June 2, 1873, trustees agree to a doctoral degree plan (recommended by the Trustees on May 5, 1873, original minutes below).



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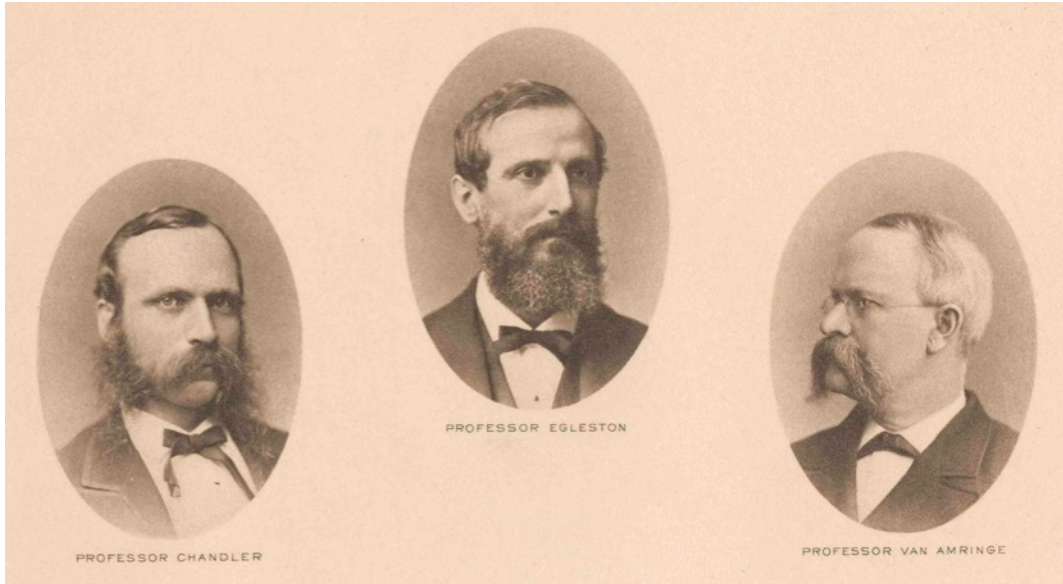


- Shown, artifacts from the School of Mines student receptions in 1874 and 1875.



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- Three early Mines professors: Egleston, Chandler, and Van Amringe