Seventy-Eighth Annual Commencement

Colorado School of Mines

Steinhauer Field House

Thursday, May Twenty-Ninth

Nineteen hundred fifty-two at ten o'clock

GOLDEN, COLORADO

BOARD OF TRUSTEES

THOMAS S. HARRISON, Denver
BEN H. PARKER, Golden

LESTER C. THOMAS, Denver
MAX W. BOWEN, Colorado Springs
TED P. STOCKMAR, Denver
PROGRAM

1952

Processional

COLORADO SCHOOL OF MINES BAND
E. A. KEHN, Director

Invocation

THE REVEREND VERN L. KLINGMAN
First Methodist Church

Address—Engineering and Research

Dr. Robert H. Mehl

Presentation of Class of 1952 to the Board of Trustees

President John W Vanderwilt

Acceptance of Class

Mr. Lester C. Thomas, President of the Board of Trustees

Conferring of Engineering Degrees

President John W Vanderwilt

Conferring of Graduate Degrees

Dr. Truman H. Kuhn
PROGRAM

1952

Presentation of Commissions, Corps of Engineers, U. S. Army to Graduates of Reserve Officers Training Corps

Lt. Colonel James B. Gray

Presentation of Medals for Distinguished Achievement

Mr. Lester C. Thomas, President of the Board of Trustees

Recognition of the Golden Anniversary of the Class of 1902

President John W Vanderwilt

Recognition of Service

President John W Vanderwilt

Awarding of Prizes

Dean M. I. Signer

Conferring of Honorary Degrees

Benediction

The Reverend Vern L. Klingman

Recessional

Colorado School of Mines Band

The audience will please be seated during the processional and recessional
Class of 1952

MAY 29

ENGINEER OF MINES

*Behram Kaikhushrou Antia ........................................... Bombay, India
David E. Aro ............................................................ Rockville Center, New York
Carl David Baer ......................................................... Denver, Colorado
Carl Lawrence Bieniewski ............................................. Milwaukee, Wisconsin
Wesley Turner Bitzer, Jr ................................................ Reed, West Virginia
James Vaull Bonds ...................................................... Newport Beach, California
Bartholomew Joseph Burns ........................................... Brighton, Massachusetts
David Robert Cella ...................................................... Wallingford, Connecticut
Robert Henry Chaisson ................................................ Newton, Massachusetts
David Rodney Cole .................................................... White Plains, New York
Charles Joseph Curtis .................................................. Pueblo, Colorado
Edgar William Davis, Jr ............................................... Altavista, Virginia
Richard Harmon Franklin ............................................. Ontario, California
Nicholas James Greenaway, Jr ....................................... La Crosse, Wisconsin
Harumi Hayashi ......................................................... Fort Lupton, Colorado
Larry Gene Hayes ........................................................ Wauneta, Nebraska
Jacques Sylvie Heyrman ................................................ New York City, New York
Roger Adams Hitchins, II ............................................. Lansdowne, Pennsylvania
Robert Miles Hurst ........................................................ Pueblo, Colorado
Guerdon Edward Jackson ................................................ Johnson City, New York
James Douglas Jerrell .................................................. Denver, Colorado
William Herbert Johnston ............................................. Hoquiam, Washington
John Miles Keating ..................................................... Sterling, Colorado
Marvin Arthur Kunde ................................................... Brainerd, Minnesota
John Trumbull Lindquist ............................................... Denver, Colorado
Richard Alan Lowery .................................................. Sedgwick, Colorado
James Earl Massey ........................................................ Whitewater, Colorado
Adolph Victor Mitterer, Jr ............................................. Denver, Colorado
Jack Stanley Petty ........................................................ Durango, Colorado
Robert Lynn Pollard, Jr ................................................ Sao Paulo, Brazil
Kenneth Theodore Seibert ............................................ Westwood, New Jersey
*Cecil Homer Smith, Jr ................................................ Amsterdam, New York
Joe T. Taylor ............................................................. Miami, Florida
Thomas Arthur Warfield ................................................ Denver, Colorado
William Donald Watts ................................................... Honolulu, Oahu, T. H.
Richard Donald Wendeborn .......................................... Elma, Manitoba, Canada
Thomas Richard Young ................................................ Glencoe, Illinois
Norman Robert Zehr .................................................... Niagara Falls, New York
METALLURGICAL ENGINEER

Edward Norman Bennett ........................................... North Riverside, Illinois
James Donald Best ................................................... St. Matthews, Kentucky
William Derby Brown ............................................... Niagara Falls, New York
Morton Stewart Cecil ............................................... Ft. Worth, Texas
Robert Danson Forest ................................................ Denver, Colorado
Frank Mathew Hruz .................................................... Milwaukee, Wisconsin
Donald Theodore Klots ............................................. Denver, Colorado
Karl Knutson .................................................................. Staten Island, New York
Francis Joseph Labriola ............................................. Denver, Colorado
Walter John Lochmann ................................................ Denver, Colorado
Craig Orrock Malin ................................................... Cristobal, Canal Zone
*George Wenjung Mao .................................................. Shanghai, China
Charles George Massieon ........................................... Peru, Illinois
Robert Michael Mousel ............................................... Sioux City, Iowa
Robert Lee Peterson ................................................... Denver, Colorado
Robert Michael Pozzo ................................................ Canton, Massachusetts
John Herman Riggs ..................................................... Denver, Colorado
Owen Keith Shupe ..................................................... North Ogden, Utah
Lawrence Calvin Simmons ........................................... Cozad, Nebraska
Wilfred A. Slader ....................................................... Millwood, New York
Walter Christopher Spence ......................................... Leicestershire, England
Victor Reno Spironello ............................................... Niagara Falls, New York
Roger King Steele ...................................................... Springfield Massachusetts
Vernon Russell Thompson ........................................... Denver, Colorado
Foster John Witthauer ................................................ Denver, Colorado

GEOLOGICAL ENGINEER

Ronald Ernest Becker ............................................... Ames, Iowa
Emanuel George Bombolakis ........................................ Long Island City, New York
Samuel Elmer Boyle, Jr. ............................................. Chicago, Illinois
Donald Lee Brehm .................................................... St. Petersburg, Florida
James Hunter Bright .................................................. Wheat Ridge, Colorado
Robert Leonard Burch ............................................... Lamar, Colorado
Charles Alvin Champion ............................................. Glendale, California
Russell Check .......................................................... Roblin, Manitoba, Canada
Richard Chojnacki ..................................................... Erie, Pennsylvania
Stewart Chuber ........................................................ Rockville Centre, New York
Paul Jan Fritts .......................................................... Kansas City, Missouri
Weldon Goble Frost ................................................... Du Bois, Pennsylvania
Robert William Gallagher ........................................... Salida, Colorado
*Robert Frazier Garland, Jr. ........................................ San Antonio, Texas
Raymond Weston Govett ........................................... Bartlesville, Oklahoma
Jack Davis Gray .................................................. Colorado Springs, Colorado
Rustam H. Irani .................................................... Bombay, India
Claude B. Jenkins ............................................... Glendale, California
Harry Christison Kent ......................................... Los Angeles, California
Joseph Henry Kurz .............................................. Denver, Colorado
Kurt Oliver Linn .................................................. Lakewood, Colorado
Charles M. Mallette ............................................. Atlantic, Iowa
Stuart Spalding Merwin ....................................... Wallingford, Connecticut
Charles Nathan McCullough, Jr. ............................. Yucaipa, California
Eugene Loyd McDaniel ......................................... Modesto, California
Wallace McGregor, Jr. .......................................... Little Silver, New Jersey
Bobby Gene Newton ............................................. Oklahoma City, Oklahoma
William Frank Oline ........................................... Dodge City, Kansas
Thomas Hague Riley ............................................ Montebello, California
Norman Richard Rowlinson .................................. Brandon, Wisconsin
James Frere Rucker ............................................. Lamar, Colorado
*Marco E. Sarmiento Arzadum ................................. La Paz, Bolivia
James Albert Uhrlaub .......................................... Denver, Colorado
Douglas Raymond Waterman, Jr. ............................ Denver, Colorado
Chester Harold Westfall, Jr. ................................... Tulsa, Oklahoma
Lawrence Williams ............................................. Chicago, Illinois
Forrest Shields Woodside, Jr. ............................... Denver, Colorado
Frederick H. Wurden ............................................ Warroad, Minnesota

PETROLEUM ENGINEER

Harry Don Adams ............................................. Knoxville, Iowa
James Stanley Ault ............................................ Kittredge, Colorado
Burton William Barnes ....................................... Phillipsburg, Kansas
Richard Francis Bolender .................................... Jamestown, New York
John Wallace Brickner ....................................... Tulsa, Oklahoma
David Alfred DeCamp ......................................... Grand Junction, Colorado
Ermon Alfred Duvall .......................................... Roswell, New Mexico
Paul Frederick Hamilton ..................................... Taft, California
Joseph Philip Hill ............................................. Santa Ana, California
Gerald William Jefferies ..................................... Durango, Colorado
Eugene Thomas Krysuk ....................................... Norwalk, Connecticut
Drexel Lewis Lee ................................................ Whittier, California
William Robert Matthews ................................... Drake, Colorado
Murray Campbell McKinnon .................................. Los Angeles, California
John Robert Ross .............................................. El Dorado, Arkansas
Howard Findlay Silver ....................................... Denver, Colorado
Kenneth N. Simonsen ......................................... Kansas City, Missouri
Roderick Arnold Thomas, Jr. ............................... Diego Martin, Trinidad, W. I.
PETROLEUM REFINING ENGINEER

Abdul Aziz Latif Alwattari ........................................... Mosul, Iraq
Ralph Eugene Anderson .................................................. Richmond, Illinois
Erling K. Arnston ......................................................... Fairview, Montana
Carl Evans Bochow ......................................................... Salina, Kansas
William R. Bradley ....................................................... Lincoln, Nebraska
William Lee Clinkenbeard .............................................. Council Bluffs, Iowa
Erwood Lincoln Colthurst ............................................... Hicksville, New York
Jack Dale Cutter .......................................................... Rifle, Colorado
John Charles Dingman, Jr. .............................................. Denver, Colorado
Franklin Pierce Frederick ............................................... Denver, Colorado
Jakob Grynberg ............................................................ Ramat Gan, Israel
Robert Neil Jensen ......................................................... Golden, Colorado
Richard Dale Land ......................................................... Bridgeport, Nebraska
Karl Waldo Linn ............................................................ Lakewood, Colorado
James Alan Montgomery ................................................ Denver, Colorado
Patrick Peter McCall ....................................................... Pittsburg, Kansas
Glen Charles Opel ........................................................ Worden, Illinois
Thomas Joseph Piersall ................................................ Yonkers, New York
Vincent Rex ................................................................. Hoboken, New Jersey
Robert Rague Reynolds ................................................ Lamar, Colorado
Mustapha Abdulah Taha ................................................ Mosul, Iraq
Theodore Arthur Wichmann ............................................. Golden, Colorado
David Rae Wilson ........................................................ Denver, Colorado
Robert Gordon Wilson .................................................. Denver, Colorado

GEOPHYSICAL ENGINEER

Michael Alexander .................................................. Mount Vernon, New York
Lloyd Earl Best ........................................................ Bakersfield, California
Harry Edward Blackburn, Jr. ......................................... Las Animas, Colorado
David Lester Brown ..................................................... Cheyenne, Wyoming
Jackson Wayne Brown ................................................ Eaton, Colorado
William Ray Brown ...................................................... Denver, Colorado
Curtis Dean Conley ...................................................... Nebraska City, Nebraska
Joe Francis Felber ....................................................... Fayetteville, Arkansas
Guy Maurice Houchins, Jr. ............................................ Tulsa, Oklahoma
Jason Stanford Johnson ................................................ Buffalo, Minnesota
Richard Cabell Johnson ................................................. Hartsdale, New York
Stuart Allison Jones ................................................... Ogden, Utah
Keith Arthur Kvenvolden ............................................. Cheyenne, Wyoming
Robert Edwards Learned ............................................... Aruba, N. W. I.
Montie C. MacMurrough ............................................... Indianola, Oklahoma
Robert Francis McMahon ............................. Toledo, Ohio  
Nevoy Milford Norem ................................. Ottawa, Illinois  
Richard Ray Persinger ............................... Burnsville, West Virginia  
James Bernard Sheehan ............................... Chicago, Illinois

JULY 12
ENGINEER OF MINES
William Paul Klein, Jr. ................................ East Orange, New Jersey  
George Henry Koewing Schenck ....................... Stamford, Connecticut  
Maung Soon Sein ........................................ Rangoon, Union of Burma  
Robert D. Shipley ...................................... Craig, Colorado  
Eugene David Smith ..................................... Boron, California  
John Colby Stoddard, Jr. ............................... Denver, Colorado  
Charles Phillip Young ................................. Glencoe, Illinois

METALLURGICAL ENGINEER
Jayraj Ramdas Sampat ................................ Bombay, India  
Earl O. Torgerson ...................................... La Crosse, Wisconsin  
William Lloyd Vorhies ................................. Houston, Texas

GEOLOGICAL ENGINEER
James Henry Butler, III ................................ Norwood, Massachusetts  
Glenn William DePuy ................................... Denver, Colorado  
Robert Howell Fitch .................................... Chicago, Illinois  
Arthur Joseph Graves .................................. Denver, Colorado  
John Milton Hingst ..................................... Ottawa Lake, Michigan  
John Patterson Lockridge .............................. Marshall, Missouri  
Joseph Paul McDaniel .................................. Dillon, Colorado  
Ira Everett McKeever, Jr. .............................. Kit Carson, Colorado  
James Hardie Ogg ...................................... Montclair, New Jersey  
Adam Neale Thomas ..................................... Montrose, Colorado  
Frederick William Ward, III ............................ Dover, New Jersey

PETROLEUM ENGINEER
Millard Eugene Benson ............................... Burlingame, California  
Robert Edward Johnson ............................... Glendale, California  
Charles William Leaf, III .............................. Denver, Colorado
GEOPHYSICAL ENGINEER
George Monroe Ball ........................................ Golden, Colorado
Benjamin Earl Binkley .................................... Denver, Colorado
Thomas John Ellis ........................................ Miami Beach, Florida
John Francis Fox ........................................ Huntington, Long Island, N.Y.
John J. Freeburg ........................................ Whittier, California
Thomas Anthony Garrity, Jr. ....................... New Orleans, Louisiana
Robert Theodore Goodfellow ................... Pasadena, California
Willard Aaron Maxey ................................ Booneville, Indiana
James Calloway McKinley ......................... Natchez, Mississippi
James Willard Newell ................................. Tulsa, Oklahoma
Raymond Leonard Ruehle ......................... Denver, Colorado
William Harold Ruehle ................................ Denver, Colorado
John Bowman Servatius .............................. Colorado Springs, Colorado
George Edward Tarbox ................................ Denver, Colorado
John Robert Westerstrand ....................... Gary, Indiana
Kurt Amandus Wittges .................................. Colorado Springs, Colorado

SEPTEMBER 13
ENGINEER OF MINES
Ernest Agustine Lucero .................................. Taos, New Mexico

METALLURGICAL ENGINEER
George Alan Carlisle .................................... St. Petersburg, Florida
Harvey Fred Hansen, Jr. ................................ Lakewood, Colorado

GEOLOGICAL ENGINEER
Robert Leland Beseda .................................. Ephrata, Washington
Patrick Edward Brennan ............................. Creston, Iowa
Thomas Edwin Johnson ................................ Butte, Montana
Hans Chr. Langerfeldt ................................ Santiago, Chile
Clement Arthur Lehnertz, Jr. ....................... St. Louis, Missouri
Richard Joseph Lutton ................................ Portland, Oregon
Thomas Myers McLaren ................................ Wichita Falls, Texas
James Ernest Stroh ...................................... Denver, Colorado

PETROLEUM ENGINEER
Clifton Howard Barnes, Jr. ........................ Nashville, Tennessee
Mohammad Abul Bashar ................................ Chittagong, Pakistan
Charles Jerome Diver .................................. Bridgeport, Illinois
Robert Edward Miezlaiskis............New Britain, Connecticut
William McKee Raimer..................Danville, Illinois
Howard Hylton Sells..................Muskegon, Michigan
John Howard Volosin..................Denver, Colorado

PETROLEUM REFINING ENGINEER
Lawrence Vawter Howenstine............Salt Lake City, Utah

GEOPHYSICAL ENGINEER
Donald Everett Wilson..................La Junta, Colorado

MAY 29
DOCTOR OF SCIENCE
MINING DEPARTMENT
Ronald Lad Carmichael......................Independence, Missouri

METALLURGY DEPARTMENT
William Martin Mueller..................Denver, Colorado

GEOLOGY DEPARTMENT
Douglas Ralph Cook.....................Jersey, Channel Is., Great Britain
Charles Franklin Fogarty................Bogota, Colombia
*Morad Malik-Aslani......................Tehran, Iran
Richard Atlee Wise..........................North Canton, Ohio

PETROLEUM REFINING DEPARTMENT
Frederick Kimberley Sabott................Golden, Colorado
Joseph Shoaf..........................Pawtucket, Rhode Island

GEOPHYSICS DEPARTMENT
Salahi Diker..........................Ankara, Turkey
Michel Gondouin........................Moree (Loire et Cher), France
Albert Wayne Musgrave..................Dallas, Texas
MASTER OF SCIENCE

MINING DEPARTMENT
Behram Kaikhushrou Antia ................................................. Bombay, India
Allen D. Gray, Jr. ................................................................. Denver, Colorado
Niles Earl Grosvenor ......................................................... Carbondale, Pennsylvania
Radhenath Segal ................................................................. Indore, Madhya-Bharat, India

METALLURGY DEPARTMENT
*George Wenjung Mao ...................................................... Shanghai, China
Homi Jamasji Tata ............................................................... Bombay, India

GEOLGY DEPARTMENT
*Ok Joon Kim ................................................................. Seoul, Korea
Eugene E. Ruly ................................................................. Parkersburg, West Virginia

PETROLEUM DEPARTMENT
*Clarence Burton Folsom, Jr. ............................................... Socorro, New Mexico

PETROLEUM REFINING DEPARTMENT
Charles Franklin Moore ....................................................... Delta, Colorado
Robert Dillard Sloan ......................................................... Redlands, California
Hilbert A. Ternstrom ......................................................... Arvada, Colorado

GEOPHYSICS DEPARTMENT
John Winton Erwin ......................................................... Hartford, Michigan
Lawrence Smith Morrison .................................................. Whittier, California
Ferhan Mustafa Sanlav ....................................................... Istanbul, Turkey

JULY 12
MASTER OF SCIENCE

MINING DEPARTMENT
Maung Soon Sein ............................................................. Rangoon, Union of Burma

METALLURGY DEPARTMENT
Jayraj Ramdas Sampat ..................................................... Bombay, India

*Completed work January 26, 1952.
PRIZES

The Wolf medal for high scholastic attainments, presented by Mr. Harry J. Wolf, '03.

A Brunton transit for meritorious work in mining engineering, provided by the late Hon. D. W. Brunton.

A prize of twenty-five dollars for meritorious work in petroleum engineering, awarded by Mr. Thomas S. Harrison, '08.

The William W. Waltman Award to the graduating senior "whose conduct and scholarship have been most nearly perfect and who has most nearly approached the recognized characteristics of an American gentleman," awarded by Mr. William D. Waltman, '99.

A prize of one hundred dollars for meritorious work in metallurgical engineering awarded by Mrs. Harold Otis Bosworth as a memorial to the late Harold Otis Bosworth.

A prize of twenty-five dollars to a senior in Petroleum Refining Engineering who has demonstrated by scholarship, personality and integrity of character, the general potentialities for a successful industrial career, awarded by Mr. Harrison L. Hays, '31.

A Brunton transit to be awarded to a senior in mining engineering who "in completing the course in mining engineering has made the most progress in his school work during the entire period for which the course is given," provided by the late Charles N. Bell, '06.

A prize of twenty-five dollars to a senior for meritorious work in chemistry, awarded by May Otis Coolbaugh as a memorial to her brother, the late Dr. Melville Fuller Coolbaugh.

Richard Cabell Johnson - Geophysical Eng.
Distinguished Achievement Medals

AWARDED BY THE

COLORADO

SCHOOL OF MINES

Commencement

May 29, 1952
FRED C. BOND

Engineer of Mines
Class of 1922
Milwaukee, Wisconsin

A smelter designer and assayer, he has worked extensively in this country and abroad and was in charge of the construction and initial operation of the first concentration plant in the western hemisphere for treating pitchblende ores. Since 1947 he has been the engineer in charge of technical research, A-C processing machinery department, Allis-Chalmers Manufacturing Company.

JOHN R. EVANS

Engineer of Mines
Class of 1923
Fort Worth, Texas

A U. S. Marine Corps veteran of World War I, he was a core drill superintendent and petroleum engineer for oil companies before joining Stanolind in 1931. Presently a director of the Stanolind Oil and Gas Company and division manager of the North Texas-New Mexico Division of Stanolind. He contributed much to the field of petroleum exploration, development and recovery.

GEORGE G. GRISWOLD, JR.

Engineer of Mines
Class of 1914
Butte, Montana

One of the nation's outstanding consulting metallurgists, he has achieved notable success in the development of lead-zinc flotation separation methods. In 1934 he designed and built a three-product mill for lead, zinc and iron concentrates having a 200-ton daily capacity in which there were neither pumps nor elevators.
HAROLD W. HAIGHT
Geological Engineer
Class of 1927
Caracas, Venezuela

As geologist and superintendent for oil companies, he worked over much of Mexico, South America and the Near East, before joining the Creole Petroleum Corporation in 1945. His present title is executive vice-president and director of this corporation in Caracas; he is directing genius of one of the largest crude oil producing companies, in the world.

RUPERT B. LOWE
Engineer of Mines
Class of 1922
New York, New York

Born in Weatherford, Texas, at the turn of the century, he worked for United Comstock Mines Company and the Texas Bridge Company before joining Bakelite in 1923. He is vice-president of three Bakelite branches—Division of Union Carbide and Carbon Corporation, Bakelite Company, Canada, Ltd., and Bakelite de Mexico. He is also a director of Heller Brothers Company of New Jersey and Ohio.

ARMOR B. MARTIN
Engineer of Mines
Class of 1923
Butte, Montana

Well known for his ability and versatility, he is chief engineer of the Montana Power Company, the organization he joined as gas engineer in 1931. He originated the design of natural gas systems which operate in cold climates and holds several patents on natural gas dew-point instruments.
FRED M. NELSON

Engineer of Mines
Class of 1925
Houston, Texas

President and director of the Texas Gulf Sulphur Company; he has been with the concern since 1927. After holding the positions of field manager and executive assistant, he was advanced to president in 1951. A pioneer in the application of geophysical methods in the Gulf Coast area, he played an important part in the development of sulphur reserves of international importance.

BEN H. PARKER

Engineer of Mines
Class of 1924
Golden, Colorado

As a petroleum geologist and educator, he has served both industry and the Colorado School of Mines well since his graduation in 1924. Now vice-president of the Frontier Refining Company, he served the school as president following World War II and is now a member of the board of trustees.