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Guide to the

AUGUSTUS B. KINZEL COLLECTION

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COPY

THE AUGUSTUS B. KINZEL COLLECTION

RECEIPT for the gift received of Mr. Augustus B. Kinzel:

PUBLICATIONS:

The following papers are by A. B. Kinzel, unless otherwise stated, and are listed in alphabetical order:

"Alloying Elements in Welding Rods", from THE WELDING JOURNAL, November 1936

"Atomic Energy and Its Implications", by Cyril Stanley Smith, S. K. Allison, Zay Jeffries, A. B. Kinzel, and John Chipman, from NUCLEONICS, April 1946

Box #1

"Bronze Welding with the Oxy-Acetylene Flame", by A. B. Kinzel and A. R. Lytle, from THE WELDING INDUSTRY, June 1934

"Characteristics of Ferrous and Non-Ferrous Alloys for Pressure Vessels", pages 62-66 of an unidentified source.

"Calcium Metal Production, A New American Industry", reprint from MINING AND METALLURGY, October 1941

"Cromansil Steels", from ELECTROMET TECHNICAL BULLETIN, issued September 1931

"Chrome-Vanadium Nitriding Steel", from ELECTROMET TECHNICAL BULLETIN, issued January 1932

"Chromium Carbide in Stainless Steel", Howe Memorial Lecture, 1952, from JOURNAL OF METALS, May 1952

"Chromium and Manganese in Structural and Stainless Steels", reprint from METAL PROGRESS, March 1936

Publications, continued:

"Critical Points in Chromium-iron Alloys", Technical Publication No. 100. THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, 1928

"A Critical Study of the Bend Test as Applied to Iron and Steel", reprint from TRANSACTIONS of the American Society of Steel Treating, Cleveland, Ohio, 1927

"Data on Manganeses Structural Steels with Chromium Additions", by A. B. Kinzel and W. B. Miller, reprint from TRANSACTIONS, of the American Society for Steel Treating, Cleveland, Ohio, 1929

"The Design of Dished and Flanged Pressure-Vessel Heads", reprint from MECHANICAL ENGINEERING, 1927

"Destructive and Non-Destructive Tests: A Critical Discussion of Methods of Testing Welds and the Significance of Results", by J. R. Dawson and A. B. Kinzel, a paper read before the 30th Annual Convention International Acetylene Association, Chicago, Ill. November 13-15, 1929

"Destructive and Non-Destructive Tests of Welds", by A. B. Kinzel and J. R. Dawson, reprint from MINING AND METALLURGY, June 1930

*Box #1*  
"Development of High Quality High Speed Oxy-Acetylene Welding of Steel in the United States", paper presented at the Rome Congress, June 5 to 11, from THE WELDING INDUSTRY, June 1934

"Ductility of Steels for Welded Structures", 1947 Edward DeMille Campbell Memorial Lecture, October 22, 1947

"Effect of Vanadium in High-speed Steel", by A. B. Kinzel and C. O. Burgess, Technical Publication No. 468, THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, 1932

"Forward to the LIFE Book entitled ENGINEERING, by Augustus B. Kinzel, (NO DATE)

"Engineering, Civilization, and Society", reprint from SCIENCE, June 9, 1967

"Engineering, Civilization and Society", a Klopsteg Lecture delivered November 8, 1966. THE TECHNOLOGICAL INSTITUTE, NORTHWESTERN UNIVERSITY, Evanston, Illinois.

"Engineering for Mankind", by Dr. Augustus B. Kinzel, President of the NATIONAL ACADEMY OF ENGINEERING. May 4, 1966

Publications, continued:

"Engineering and Our Way of Life", the Gwilym A. Price Engineering Lecture, School of Engineering, University of Pittsburgh, May 7, 1968

"Engineering-A Prerequisite to Culture", a commencement address, Rensselaer Polytechnic Institute, Troy, New York, June 11, 1965

"Etude des Methodes D'Essai des Soudures Oxyaetyleniques des Toles D'Acier", SOCIETE D'IMPRESSIONS TYPOGRAPHIQUES, 1933

"Evaluation of the Technical Worth of A Steel from Physical Test Data", presented at the Meetings of THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, August 27, 1928 and October 1, 1928, from TRANSACTIONS of THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS.

"The Face of Tomorrow", presented at the 37th Annual Executive Conference, October 1966

"Factors in the Selection of Railroad Steels", reprint from RAILWAY PURCHASES AND STORES, April 1937

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"Fine-grained Structural Steels for Low-temperature Pressure-vessel Service", by A. B. Kinzel, Walter Crafts, and John J. Egan, from Technical Publication No. 800, AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, April 1937

"The Future of Alloy Steels", (How Important Will They Be In 1944?) reprint from THE TECHNOLOGY REVIEW, January 1936

"Graphite in Low-Carbon Steel", by A. B. Kinzel and R. W. Moore, Technical Publication No. 565, AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, September 1934

"High Conductibility Copper Castings", reprint from TRANSACTIONS, AMERICAN FOUNDRYMEN'S ASSOCIATION, INC. June 1940

"Inclusions and Their Effect on Impact Strength of Steel", by A. B. Kinzel and Walter Crafts, Technical Publication No. 402, and Technical Publication No. 436, THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, 1931

"Increasing of the Utility of the Bend Test", reprint from THE IRON AGE, September 6, 1928

"Industrial Research-Why, How and What", delivered at the Noranda Lecture, Montreal Expo, 1967

Publications, continued:

"Iron and Steel, Intelligent Use of Alloys Brings Big Demand for High-Quality, Low-Cost Product", from MINING AND METALLURGY, January 1937

"Internal Stresses in Welds, Their Cause and Effect", from METALS AND ALLOYS, October 1937

"Low-Alloy, High-Tensile Steels", reprint from THE IRON AGE, April 23, 1936

"Low Temperature Impact Strength of Some Normalized Low Alloy Steels", by John J. Egan, Walter Crafts and A. B. Kinzel, reprint from the TRANSACTIONS OF THE AMERICAN SOCIETY FOR METALS, 1933

"Mastery Over All Metals", ( A Business News Advertisement), Dec. 1934.

"Trends in Alloy Steels", from METAL PROGRESS, October 1944

"Metallography-New Instrumentation and Techniques", reprint from METAL PROGRESS, January 1953

*Box #1*  
"Metallurgical Effects Produced in Steel by Fusion Welding", Technical Publication No. 597, AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, January 1935

"Metallurgical Fundamentals of High-Speed, High-Quality Autogenous Welding", presented at British Iron & Steel Institute, May 2, 1935

"Minute Nonferritic Particles in Steel", reprint from JOURNAL OF APPLIED PHYSICS, May 1937

"The Mode of Materials Research", from INDUSTRIAL RESEARCH, October November 1960

"The National Academy of Engineering", address to TAU BETA, April 1966

"Nitriding in Packing Materials and Ammonia", by A. B. Kinzel and John B Egan, presented at the 12th Annual Convention of the AMERICAN SOCIETY FOR STEEL TREATING, September 1930

"Nondeforming Alpha-Delta Carburizing Steel", presented at the 13th Annual Convention of the AMERICAN SOCIETY FOR STEEL TREATING, September 1931

"Non-Destructive Testing of Welds by Means of the Stethoscope and X-Ray", by A. B. Kinzel, C. O. Burgess and A. R. Lytle, presented at the Fall Meeting of A.W.S., September 1929

Publications, continued:

"Opening Address Round Table Discussion on Conservation and Substitution in the Compressed Gas Industries", unidentified source.

"Oxide Analysis by Iodine Extraction in Steelmaking Problems", by J.J. Egan, W. Crafts and A. B. Kinzel, Technical Publication No. 498, THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS. 1933

"Oxyacetylene Process in New Fields of Usefulness", unidentified source.

"Picking Out Metal Flaws with A Stethoscope", LITERARY DIGEST, 1929

"The Place of Engineering in Our Modern Civilization", the Second Sweeney Lecture, College of Engineering, Iowa State University, December 16, 1965

"Planning for Research by a Major Chemical Company", presented to CHEMICAL MARKETING AND ECONOMICS DIVISION OF ACS, September 1960

"Pressure Vessel Alloys", abstract of paper presented at 9th Annual Meeting of the NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS no date

*Boiler #1*  
"Product Research and Trends in the Steel Industry", Inaugural address by A. B. Kinzel, Chief Metallurgist, Union Carbide & Carbon Corporation as Chairman of the Iron and Steel Division. reprint from 144th Annual Meeting A.I.M.E. March 1935

"Progress in Metallurgy" The Science of Alloys", reprint from THE JOURNAL OF THE FRANKLIN INSTITUTE, September 1939

"Pure Silicon", by A. B. Kinzel, and Thomas R. Cunningham, Technical Publication No. 1138, AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, 1939

"Rapid Determination of Oxide in Molten Steel", by A. B. Kinzel, J. J. Egan and R. J. Price, reprint from METALS & ALLOYS, May, 1934

"Recruiting Scientists and Engineers for the United States Civil Service", "Research and the National Economy", by Dr. Augustus B. Kinzel, reports of Proceedings of the CONFERENCE ON SCIENTIFIC MANPOWER, April 1959

"Report on the XIth International Acetylene and Allied Industries Congress, London, 1936", mimeographed copy.

Publications, continued:

"Research and Development in Industry", transcript of material presented to the resident students at the Industrial College of the Armed Forces January 21, 1958

"Research in the Economy", presented to the LIFE ASSURANCE SOCIETY, September 1959. mimeographed copy

"Science--Perspective and Potential," transcript of a presentation at the General Session of the 60th Annual Meeting of the AMERICAN MEAT INSTITUTE, Americana of New York, September 13, 1965

"Science on the Payroll", from THINK, August 1958

"Short-Time Nitriding", by John J. Egan, paper presented at the 13th Annual Convention of the AMERICAN SOCIETY FOR STEEL TREATING, 1931

"Short-Time Nitriding of Steel in Molten Cyanides", by A. B. Kinzel and J. J. Egan, reprint from TRANSACTIONS OF THE AMERICAN SOCIETY FOR STEEL TREATING, 1929

"Experimental Data on the Equilibrium of the System Iron Oxide-Carbon in Molten Iron", Technical Publication No. 230, THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, 1929

"Silicon: Its Applications in Modern Metallurgy", a talk given before the IRON & STEEL AND INSTITUTE OF METALS DIVISIONS, A.I.M.E. October 1933

"Slag Control in the Making of Iron and Steel", Technical Publication No. 625, AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, June 1935

"The Specification of the Weldability of Steels", presented before the 22nd Annual Meeting of the AMERICAN WELDING SOCIETY, October 1941

"Specifications?!", a H.W. Gillett Memorial Lecture, presented before the 64th Annual Meeting of the AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1961

"A Quick Method of Comparing Weldability of Substitute Steels", from THE WELDING JOURNAL, October 1941

"Solid Phase Welding", an Adams Lecture, presented before the 25th Annual meeting of the AMERICAN WELDING SOCIETY, 1944

"Silicon-Manganese Steels with Chromium Additions for Engineering Applications, reprint from TRANSACTIONS OF THE AMERICAN SOCIETY FOR STEEL TREATING, 1928

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Publications, continued:

"Steels for Case Nitriding", reprint from the TRANSACTIONS OF THE AMERICAN SOCIETY FOR STEEL TREATING, 1948

"\$12 Billion--Why? Why Not?", from TRUSTS AND ESTATES, January 1962

"Vanadium Metal, A New Article of Commerce", reprint from METAL PROGRESS, September 1950

"Welding Alloy Steels", reprint from A.S.M.E. TRANSACTIONS, October 1936

"Welding Low-Alloy Steels", opening remarks for the A.W.S. Symposium presented at the Annual Meeting (AMERICAN WELDING SOCIETY), October, (no year)

"Who Speaks for the Engineer?", from AGRICULTURAL ENGINEERING, March 1961

"U.C.L.A. Conference on the Management of Technology Transfer", March 22, 1968, carbon copy

Report on Dr. Kinzel's speech to A.S.M. 50th Anniversary in New York October 6, 1969. includes a letter To: Mr. Carl M. Loeb, Jr. From: Harry S. Blumberg, October 17, 1969.

Summary of Dr. Kinzel's Address, Symposiarchs, Chemists' Club, May 7, 1962. "Constructive Review of the Principles of Selection and Evaluation of R. & D. Projects".

BIOGRAPHICAL MATERIALS:

"Doctor Augustus Braun Kinzel"

"An Eminent Living Metallurgist", Augustus Braun Kinzel, President of Union Carbide & Carbon Research Laboratories. Written by Myron Weiss.

"Augustus B. Kinzel to Head Engineers Joint Council--1960", from METALS REVIEW, May 1960

Dr. Augustus B. Kinzel Receives Industrial Research Institute Medal  
news release from May 10, 1962

RESEARCH AND ENGINEERING Interviews Kinzel of Carbide on the Duties of a V.P. of Research Optimum Size of an R/D Lab, the Pros and Cons of Contract Research, Foreign Recruiting--Be Wary", February 1957, 2 copies

"Thinking Ahead with Augustus B. Kinzel, The Engineer Goes to Washington from INTERNATIONAL SCIENCE AND TECHNOLOGY, June 1965

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"Welcoming Address to the International Institute of Welding",  
no date, carbon copy.

Clipping from DUN'S REVIEW AND MODERN INDUSTRY, New York, May  
1959

PATENTS:

Patent Specification, No. 399,643. "Improvements in Alloy Steel Springs  
and Spring Blanks", Complete Specification, accepted October 12, 1933

United States Patent Office. No. 1,736,919. Augustus B. Kinzel,  
Assignor to Electro Metallurgical Company. "Surface-Hardened Material  
and Method for Producing the Same", patented Nov. 26, 1929

United States Patent Office. No. 1,736,920. Augustus B. Kinzel,  
Assignor, to Electro Metallurgical Company, "Case Hardening",  
Patented November 26, 1929

United States Patent Office. No. 1,736,921. Augustus B. Kinzel,  
assignor to Electro Metallurgical Company, "Case Nitriding of  
Steel", patented November 26, 1929

United States Patent Office. No. 1,747,549. Augustus B. Kinzel,  
Assignor for Electro Metallurgical Co. "Hardening Process", patented  
February 18, 1930

United States Patent Office. No. 1,808,355. Augustus B. Kinzel,  
assignor to Electro Metallurgical Company of West Virginia.  
"Method of Nitriding, Patented June 2, 1931

United States Patent Office. No. 1,883,382. Augustus Kinzel,  
assignor to Electro metallurgical Co. "Ingot Mold", patented October  
18, 1932

United States Patent Office. No. 1,888,132. Augustus B. Kinzel,  
assignor to Electro Metallurgical Company, "Method of Casting Steel  
Ingots", patented November 15, 1932

United States Patent Office. No. 1,907,183. Augustus B. Kinzel,  
assignor..... "Method of Nitriding Metals", patented May 2, 1933

United States Patent Office. No. 1,924,043. Augustus B. Kinzel,  
assignor..... "Metal Container", patented August 22, 1933

United States Patent Office. No. 1,929,554. Augustus B. Kinzel,  
assignor..... "Steel and Articles Made Therefrom", patented Oct.  
10, 1933

United States Patent Office. No. 1,931,134. Augustus B. Kinzel,  
assignor..... "Bright Annealing", patented October 17, 1933

Patents: continued:

United States Patent Office. No. 1,953,859. Augustus B. Kinzel, assignor to Electro Metallurgical Company, a corporation of West Virginia. "Composite Metal Article", patented April 3, 1934

United States Patent Office. No. 1,972,524. Augustus B. Kinzel, assignor..... "Alloy Steel Spring", patented September 4, 1934

United States Patent Office. No. 1,977,280. Augustus B. Kinzel, "Case-Hardening", patented October 16, 1934

United States Patent Office. No. 2,018,267. Augustus B. Kinzel, assignor....."Machine Element", patented October 22, 1935.

United States Patent Office. No. 2,027,868. Augustus B. Kinzel, assignor....."Method of Treating Steel Making Slags", patented January 14, 1936

United States Patent Office. No. 2,030,640. Augustus B. Kinzel, assignor....."Portable Testing Machine", Augustus B. Kinzel. patented February 11, 1936

*Book #1*  
United States Patent Office. No. 2,039,087. Augustus B. Kinzel. assignor, to Union Carbide and Carbon Corporation, of New York, "Method of and Means for Melting and Refining Metals", patented April 28, 1936

United States Patent Office. No. 2,042,426. Augustus B. Kinzel. assignor....."Apparatus for Use at Low Temperatures", patented May 26, 1936

United States Patent Office. No. 2,042,665. Augustus B. Kinzel, assignor....."Process for Producing Gases", patented June 2, 1936

United States Patent Office. No. 2,046,168. Augustus B. Kinzel. assignor....."Machine Element", patented June 30, 1936

United States Patent Office. No. 2,055,769. Augustus B. Kinzel assignor....."Tool". patented September 29, 1936

United States Patent Office. No. 2,076,515. Augustus B. Kinzel. assignor....."Method of Heat Treating Plane and Unidimensional Curved Metallic Surfaces", patented April 6, 1937

United States Patent Office. No. 2,077,568. Augustus B. Kinzel. assignor....."Process for Purifying Ferrous Metals", patented April 20, 1937

United States Patent Office. No. 2,099,896. Augustus B. Kinzel. assignor....."Indicating Extensometer", patented November 23, 1937

Patents, continued:

United States Patent Office, No. 2,114,802. Augustus B. Kinzel, assignor, by mesne assignments to Union Carbide and Carbon Corp. of New York. "Nitride Hardened Steel Article", patented April 19, 1938.

United States Patent Office. No. 2,125,172. Augustus B. Kinzel, assignor....."Process of Treating the Defective Surface Metal of Billets or the Like", patented July 26, 1938.

United States Patent Office. No. 2,125,173. Augustus B. Kinzel, assignor....."Apparatus for Treating the Defective Surface Metal of Billets or the Like", patented July 26, 1938

United States Patent Office. No. 2,145,625. Augustus B. Kinzel, assignor....."Fireproof Bronze Welded Structure", patented January 31, 1939.

United States Patent Office. No. 2,152,434. Augustus B. Kinzel, assignor....."Alloy Steel", patented March 28, 1939

United States Patent Office. No. 2,215,588. Augustus B. Kinzel, assignor;;;;;"Process for Decarburizing Metals", patented September 24, 1940

United States Patent Office. No. 2,221,949. Augustus B. Kinzel, assignor....."Handling Hot Aqueous Solutions of Phosphoric Acid", patented November 19, 1940

United States Patent Office. No. 2,240,405. Augustus B. Kinzel, assignor....."Method of Making Cast Metals", patented April 29, 1941

United States Patent Office. No. 2,266,122. Augustus B. Kinzel, assignor....."Silicon Alloy", patented December 16, 1941

United States Patent Office. No. 2,66,123. Augustus B. Kinzel, assignor to Electro Metallurgical Company. "Silicon Alloy and Its Use in the Treatment of Iron and Steel", patented December 16, 1941

United States Patent Office. No. 2,273,809. Augustus B. Kinzel, assignor, by mesne assignments to Union Carbide and Carbon Corp. "Method of and Apparatus for Hardening Surfaces of Metal Bodies",

United States Patent Office. No. 2,280,833. Augustus B. Kinzel assignor to Electro Metallurgical Company. "Treatment of Cast Metals", patented April 28, 1942

United States Patent Office. No. 2,462,871. Augustus B. Kinzel, assignor, to Union Carbide and Carbon Corp. "Treating Agent", patented March 1, 1949

Box #1

Patents, continued:

United States Patent Office. No. 2,481,599. Augustus B. Kinzel, and Charles O. Burgess, assignors to Union Carbide, et al...  
"Alloy Addition Agent", patented September 13, 1949

\*United States Patent Office. No. 2,145,625. Augustus B. Kinzel, assignor to Electro Metallurgical Co. "Fireproof Bronze Welded Structures", patented January 31, 1939

United States Patent Office. No. 2,215,588. Augustus B. Kinzel, assignor....."Processes for Decarburizing Metals", patented September 24, 1940

United States Patent Office. No. 2,221,949. Augustus B. Kinzel, assignor....."Handling Hot Aqueous Solutions of Phosphoric Acid", patented November 19, 1940

United States Patent Office. No. 2,240,405. Augustus B. Kinzel, assignor....."Methods of Making Cast Metals", patented April 29, 1941

United States Patent Office. No. 2,244,709. Augustus B. Kinzel, assignor....."Vehicles", patented June 10, 1941

United States Patent Office. No. 2,273,809. Augustus B. Kinzel, assignor to Union Carbide and Carbon Corp. "Methods of and Apparatus for Hardening Surfaces of Metal Bodies", patented February 17, 1942

United States Patent Office. No. 2,266,122. "Silicon Alloys", patented December 16, 1941. (Augustus B. Kinzel, assignor)

United States Patent Office. No. 2,266,123. Augustus B. Kinzel, assignor to Electro Metallurgical Company. "Silicon Alloys and Their Use in the Treatment of Iron and Steel", patented December 16, 1941

United States Patent Office. No. 2,481,599. Augustus B. Kinzel, assignor.....with Charles O. Burgess, to Union Carbide and Carbon Corp. "Alloy Addition Agents", patented September 13, 1949

United States Patent Office. No. 2,462,871. Augustus B. Kinzel, assignor....."Treating Agents", patented March 1, 1949.

\*The last 10 items listed are accompanied by certificates and are sealed with the seal of the United States of America Patent Office.

A list of the patents secured by Augustus B. Kinzel.

(Signed)

Gene M. Gressley,  
Director

GMG/ees