

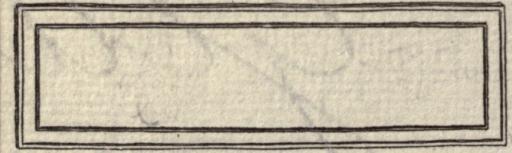
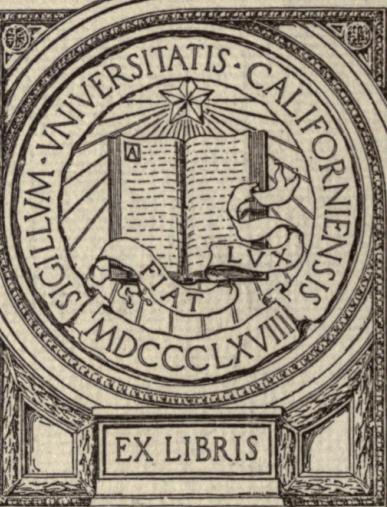
T S
227
N4

UC-NRLF



\$B 580 269

GIFT OF
new york Public Library



Dec 1 1914

THE NEW YORK PUBLIC LIBRARY
ASTOR LENOX AND TILDEN FOUNDATIONS

LIST OF WORKS IN THE LIBRARY RELATING
TO OXY-ACETYLENE WELDING



NEW YORK
1914

THE NEW YORK PUBLIC LIBRARY
ASTOR LENOX AND TILDEN FOUNDATIONS

LIST OF WORKS IN THE LIBRARY RELATING
TO OXY-ACETYLENE WELDING



NEW YORK
1914

TIS227
N4

REPRINTED FROM THE
BULLETIN OF THE NEW YORK PUBLIC LIBRARY
OCTOBER, 1914

NO. MMU
AMERICAN

EXPLANATORY NOTE

These books and articles may be consulted in Room 115 of the Reference Department of The New York Public Library. This list covers publications from 1893 to date.

LIST OF WORKS IN THE NEW YORK PUBLIC LIBRARY RELATING TO OXY-ACETYLENE WELDING

COMPILED BY THE DIVISION OF TECHNOLOGY

The arrangement is chronological by date of publication. For references to acetylene other than in its relation to welding the reader should consult the various periodicals related to the industry, also the indexes of the Journal of the "Society of Chemical Industry" (VOA). For patent abstracts, reports of the Deutscher Acetylén Verein, and for various German decrees, see the files of "Carbid und Acetylen" (VGA), and of the "Zeitschrift für Calcium Carbid Fabrikation" (VGA). Though patents are not as a rule cited, indexes and text may be consulted in the Patents room, Number 121.

1893

1. Dixon, Harold B. The rate of explosion in gases. (*Philosophical transactions of the Royal Society, London*, v. 184, 1893, p. 97-188.) *EC

For rates of explosion of mixtures of acetylene and oxygen see p. 183.

1895

2. Le Chatelier, H. Sur la combustion de l'acétylène. Note...présentée par M. Dau-brée. (*Comptes rendus des séances de l'Académie des sciences, Paris*, v. 121, 1895, p. 1144-1147.) *EO

1896

3. Le Chatelier, H. Experiments on the combustion of acetylene [mixtures with air]. (*Journal of the Society of Chemical Industry, London*, v. 15, Nov. 30, 1896, p. 793-794.) VOA

Abstract of article in *Journal de pharmacie et de chimie*, v. 4, Nov., 1896, p. 313.

1897

4. Bone, W. A., and J. C. CAIN. The explosion of acetylene with less than its own volume of oxygen. illus. (*Journal of the Chemical Society, London*, v. 71, 1897, p. 26-41.) PKA

1900

5. Lake, E. F. Liquid gas for welding and lighting. illus. (*American machinist, New York*, v. 32, part 1, April 22, 1909, p. 648-651.) VFA

Abstracted in *Engineering magazine, New York*, v. 37, June, 1900, p. 432-433, VDA.

Invention of L. Wolf, Basseldorf, Switzerland. Claims 2500 more thermal units per cubic meter than acetylene gas.

6. Nichols, Edward L. On the temperature of the acetylene flame. illus. (*Physical review, New York*, v. 9, April, 1900, p. 234-252.) PAA

Abstracted in *Proceedings of the Institution of Civil Engineers, London*, v. 142, 1900, p. 468-469, VDA; also in the *Journal of the Society of Chemical Industry, London*, v. 20, Feb. 28, 1901, p. 109, VOA.

Account of tests made at the Cornell Physical Laboratory.

1901

7. Nichols, Edward L. The acetylene flame. illus. (*Journal of the Franklin Institute, Philadelphia*, v. 150, Nov., 1900, p. 356-387.) VA

Abstracted in *Journal of the Society of Chemical Industry, London*, v. 20, Jan. 31, 1901, p. 29, VOA.

Considers the acetylene flame as a source of high temperature.

1903

8. Binet, André. La soudure autogène des métaux. illus. (*Le génie civil, Paris*, v. 43, May 23, 1903, p. 54-56.) VA

Abstracted in *Metal worker, New York*, v. 60, July 11, 1903, p. 48, VIA.

Comparison with oxy-hydric, electric, and other systems. Costs. Correspondence between Binet and Emile Demenje regarding this article appears in *ibid.*, July 4, 1903, p. 157.

9. Fouché, Ed. L'acétylène; ses applications domestiques et industrielles. illus. (*Bulletin technologique, Paris*, Nov., 1903, p. 1288-1331.) VA

Properties of acetylene. Generators. Portable acetylene. Lighting, heating, and power applications. First experiments in welding. The flame and its operation.

10. —— Le chalumeau oxy-acétylénique. illus. (*Le génie civil, Paris*, v. 43, Sept. 26, 1903, p. 341-343.) VA

11. Janet, A. L'acétylène dissous et ses principales applications. Éclairage portatif; chalumeaux oxyacétyléniques. illus. (Le génie civil, Paris, v. 43, July 18, 1903, p. 180-182.) VA

Method of the Compagnie française de l'acétylène for transporting dissolved acetylene.

12. Leroyer, L. Soudure autogène des métaux. illus. (Bulletin technologique, Paris, Dec., 1903, p. [1341]-1352.) VA

Autogenous welding in general with cost comparisons.

1904

13. Azetylen-Sauerstoffflame zu schweissen. illus. (Zeitschrift des Vereines deutscher Ingenieure, Berlin, Bd. 48, Jan. 30, 1904, p. 182-183.) VDA

Refers to successful results in France. Comparison with water gas.

1905

14. Arnoux, R. Procédés de soudure autogène des métaux. (Mémoires et compte rendu des travaux de la Société des ingénieurs civils de France. Bulletin, October, 1905, p. 442-443.) VDA

Reply to communication of M. Dumesnil.

15. Autogene Schweissung. illus. (Stahl und Eisen, Düsseldorf, v. 25, Aug. 1, 1905, p. 880-886.) VIA

Refers mainly to oxy-hydrogen welding. Gas costs in comparison with acetylene.

16. Bone, W. A., and G. W. ANDREW. The combustion of acetylene. (Journal of the Chemical Society, London, v. 87, 1905, p. 1232-1248.) PKA

Abstracted in Journal of the Society of Chemical Industry, London, v. 24, 1905, p. 1005, VOA.

Detailed results of experiments on different oxy-acetylene mixtures under varying conditions.

17. Bureau Veritas. Rapport sur le chalumeau oxy-acétylénique de la Compagnie universelle de acétylène. illus. La revue technique, Paris, v. 26, Nov. 25, 1905, p. 856-859.)

Results of tests at the Laboratoire national du Conservatoire des arts et métiers.

18. Cutler, F. C. Autogenous welding. illus. (Cassier's magazine, v. 32, Sept., 1907, p. 441-447.) VDA

General article on welding and cutting.

19. Dumesnil, P. Procédés de soudure autogène des métaux. (Mémoires et compte rendu des travaux de la Société des ingénieurs civil de France. Bulletin, October, 1905, p. 438-439.) VDA

Very general in scope.

20. Fouché, Ed. [Procédés de soudure autogène des métaux.] (Mémoires et compte rendu des travaux de la Société des ingénieurs civils de France. Bulletin, Nov.-Dec., 1905, p. 609-611.) VDA

Discussion of letters of Dumesnil and Arnoux, which see.

21. — The use of acetylene for self welding. (Iron age, New York, v. 76, Dec. 7, 1905, p. 1561-1562.) VDA

Abstract of paper read before the Liege Congress of Mining and Metallurgy, July, 1905.

22. Fraubel, S. Die Anwendung des Azetylens zum Schweißen von Eisen und Stahl mittels Sauerstoff. (Schilling's Journal für Gasbeleuchtung u.s.w., München, v. 48, Dec. 2, 1905, p. 1069-1070.) VOA

Abstracted in Electrochemical and metallurgical industry, New York, v. 4, Jan., 1906, p. 28, VIA; also in Journal of the Society of Chemical Industry, London, v. 24, Dec. 30, 1905, p. 1308, VOA.

Data as to required volume and pressure of gas and also as to cost.

23. Nemmo. Welding of metals with acetylene. (Electrical review, London, v. 3, Dec. 29, 1905, p. 1061-1062.) VIA

Also in Electrochemical and metallurgical industry, New York, v. 4, Feb., 1906, p. 70, VIA. Abstracted from Bulletin of Italian Engineers and Architects.

Gives practical working details.

1906

24. Acetylene for high-temperature work in laboratory and workshop. illus. (Electrochemical and metallurgical industry, New York, v. 4, Feb., 1906, p. 75-76.) VIA

Description of welding devices of Harris Calorific Co., Cleveland, O., and of an acetylene generator.

25. Beltzer, Andre. Autogenous welding of metals by the oxy-acetylene blowpipe and a new method of generating oxygen. illus. (Electrochemical and metallurgical industry, New York, v. 4, July, 1906, p. 284-286.) VIA

Abstracted in Metal worker, New York, v. 66, Nov. 10, 1906, p. 67, VIA; in Machinery, New York, (Eng'g ed.), v. 15, Sept., 1906, p. 27-28, VFA; and in Iron age, New York, v. 78, Nov. 1, 1906, p. 1149, VDA.

Discusses advantages of oxy-acetylene process, "sepurite" (oxygen-powder), and method of welding.

— — — (New York, 1906.) 2 l. illus. 4°. † VBA p.v.7, no.19

Reprint of the preceding article.

26. Burr, S. D. V. Autogenous welding with the oxy-acetylene flame. (Iron age, New York, v. 78, Nov. 29, 1906. p. 1437.) VDA

Refers to "Eupurite" generator.

27. Michaelis, L. Ueber das Schweißen mit der Sauerstoff-Azetylen flamme (unter Benutzung eines Vortrages des Eduard Fouché). 15 illus. (Schiffbau, Berlin, v. 8, Nov. 28, 1906, p. 120-123 and Dec. 12, p. 168-172.) † VXA

A description of the apparatus and discussion of costs.

28. Rush, J. K. Acetylene for the laboratory. illus. (Electrochemical and metallurgical industry, New York, v. 4, May, 1906, p. 197-198.) VIA

Gives relative cost compared with coal-gas, etc.

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

7

29. Schneider, Ernst. Autogene Schweißung der Metalle. Allgemeines. Kompromierter Wasserstoff-Sauerstoff. Elektrolytisch gewonnener Wasserstoff-Sauerstoff. Acetylen-Sauerstoff, System Fouché. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylens- und Klein-Beleuchtung, Berlin, v. 10, June 1, 1906, p. 166-172.) **VGA**
30. Schweissverfahren mittels der Sauerstoff-Acetylenflamme. illus. (Zeitschrift für Dampfkessel und Maschinenbetrieb, Berlin, v. 29, Feb. 28, 1906, p. 79-82.) **VFA**
General article with table showing gas consumption and cost for varying plate thicknesses.
31. Wiss, E. Die autogene Schweißung der Metalle. illus. (Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 50, Jan. 13, 1906, p. 47-53.) **VDA**
English abstract in Engineering magazine, New York, v. 30, March, 1906, p. 900-902, **VDA**. Discusses principally the oxy-hydric process. Brief comparison with oxy-acetylene on p. 53. For discussion with L. Michaelis, see Zeitschrift for May, 1906, p. 707-708.

1907

32. Autogenous welding of steel. (Foundry, Cleveland, v. 30, March, 1907, p. 65.) **VIA**
Brief reference to "epurite" plant of Worcester Pressed Steel Co.

33. Autogenous welding. Use of the oxy-acetylene blowpipe in repair work. illus. (Iron age, New York, v. 80, July 11, 1907, p. 88.) **VDA**
General article citing typical jobs completed by the Worcester Pressed Steel Company, Worcester, Mass.

34. Autogenous welding with the oxy-acetylene blowpipe. illus. (Engineering news, New York, v. 57, June 27, 1907, p. 706-707.) **VDA**
A detailed description of the process of the Worcester Pressed Steel Company.

35. Autogenous welding with the oxy-acetylene high pressure blowpipe. illus. (Scientific American, New York, v. 96, March 23, 1907, p. 225.) **VA**
New process of the Acetylene Illuminating Company of Lambeth, London. Time and gas consumption according to the French Bureau Veritas.

36. Booth, W. H. Oxy-acetylene blowpipe welding. illus. (American machinist, v. 30, part 2, July 11, 1907, p. 44-46.) **VFA**
Making reinforced tubes for automobile work. Its possibilities for boilers and the reasons for its intense heat.

37. Brazing and welding. (American machinist, New York, v. 30, part 2, Nov. 7, 1907, p. 740.) **VFA**
Contains a brief reference to oxy-acetylene process.

38. C., F. H. Welding steel with a blowpipe. illus. (American machinist, New York, v. 30, part 1, May 23, 1907, p. 734-735.) **VFA**
Practice of the Worcester Pressed Steel Company.

39. Cutting and welding steel with the oxy-acetylene blowpipe. (Boiler maker, New York, v. 7, Dec., 1907, p. 370.) **VFA**
40. Davis, Augustine. Autogenous welding by the oxy-acetylene process. (International Acetylene Association, Proceedings, tenth annual meeting, Washington, D.C. Chicago, 1907, p. 60-64.) **VOKA**
Also in Metal worker, New York, v. 68, July 20, 1907, p. 60-61, **VIA**. General in scope with table showing speed and cost of operation.
41. Gauthier, E., and C. RODRIGUES-ELY. Special oxy-acetylene burner for cutting metals. U. S. patent 874666, Dec. 24, 1907. (Electrochemical and metallurgical industry, New York, v. 6, March, 1908, p. 121.) **VIA**

42. Heraeus, W. C. Zur Schweißung des Aluminiums. (Chemiker-Zeitung, Cöthen, v. 31, Aug. 3, 1907, p. 773.) **VOA**

- Abstracted in Electrochemical and metallurgical industry, New York, v. 6, March, 1908, p. 121, **VIA**. Concerning the priority of invention between Heraeus and Schoop.

43. Knappich, Jac. Autogene Acetylen-Sauerstoffschweißung. illus. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylens- und Klein-Beleuchtung, Berlin, v. 11, Jan. 11, 1907, p. 8-12.) **VGA**
General descriptive article with table showing amount of gas, cost, etc., for varying plate thicknesses.

44. Lightfoot, Cecil. The oxy-acetylene blowpipe. (International Acetylene Association, Proceedings, tenth annual meeting, Washington, D. C. Chicago, 1907, p. 64-72.) **VOKA**
With discussion.
Abstracted in Iron age, New York, v. 80, Sept. 19, 1907, p. 770-771, **VDA**. Linde Air Products Co. apparatus (Fouché patent).

- (Metal worker, New York, v. 69, Jan. 11, 1908, p. 53-54.) **VIA**

45. Oxy-acetylene, The, process of uniting metals. illus. (Machinery, New York, Eng'ng ed., v. 13, July, 1907, p. 601-602.) **VFA**
Describes the plant of the Worcester Pressed Steel Company used in the manufacture of steel parts for automobiles, bicycles, etc.

46. Peter. Schweißen und Löten. Elektrische Schweißmaschinen für Massenfabrikation. illus. (Glasers Annalen für Gewerbe und Bauwesen, Berlin, v. 60, 1907, p. 41-49, 61-65, 121-125.) **VDA**
Abstracted in Zeitschrift für Dampfkessel und Maschinenbetrieb, Berlin, v. 30, p. 79-80, 91, **VFA**. Refers mainly to electric welding. Brief comparison with oxy-acetylene.

47. Ruck-Keene, Harry. New methods of effecting boiler repairs. (Boiler maker, New York, v. 7, Dec., 1907, p. 363-366.) **VFA**
Abstracted in Iron and coal trades review, London, v. 75, Nov. 8, 1907, p. 1752, illus, **VIA**. Also in Railway and engineering review, Chicago, v. 47, Dec. 7, 1907, p. 1050-1052, **VIA**.

- Description of the oxy-acetylene and electric processes of welding.

48. Safe blowing in Germany by use of oxy-acetylene burner. (Electrochemical and metallurgical industry, New York, v. 5, Sept., 1907, p. 381-382.) **VIA**

Account of an actual burglary.

49. Schneider, Ernest. Autogenous welding of metals; applications of the oxy-hydrogen and oxy-acetylene flames. (Scientific American supplement, v. 64, July 20, 1907, p. 38-39.) **VA**

Abstracted in Engineering magazine, New York, v. 34, Oct., 1907, p. 192-194, *VDA*.

Abstract from a paper read at Chemnitz, Germany. Gives cost data, and comparison of processes.

50. Schoop, M. U. Die autogene Schweißung von Aluminium. illus. (Chemiker-Zeitung, Cöthen, v. 31, July 27, 1907, p. 749-750.) **VOA**

Abstracted in Electrochemical and metallurgical industry, New York, v. 6, March, 1908, p. 95-96, *VIA*.

A brief account with tabulated data.

51. — The autogenous soldering of metals. illus. (Scientific American, New York, v. 96, March 2, 1907, p. 189-190.) **VA**

Industries for which it is suitable, and special application to soldering aluminum.

52. — A burner for cutting metals. illus. (Electrochemical and metallurgical industry, New York, v. 5, August, 1907, p. 308-309.) **VIA**

53. Steel cutting with the oxy-acetylene flame. (Iron age, New York, v. 79, June 20, 1907, p. 1871.) **VDA**

Demonstration by the Davis-Bournonville Acetylene Development Company, New York City.

54. Thomas, R. La soudure autogène des métaux. illus. (Bulletin technologique, Paris, Sept., 1907, p. [575]-628.) **VA**

This important paper compares different systems of autogenous welding. Practical directions. Cost tables. Manufacture of steel tubes and special pipes. Various kinds of repairs.

1908

55. Autogene Schweißung von Gussstücken. (Zeitschrift für Dampfkessel und Maschinenbetrieb, Berlin, v. 31, Aug. 28, 1908, p. 336-338.) **VFA**

Aparatus of Keller and Knappich, Augsburg. Abstracted in Dingler's polytechnisches Journal, Berlin, v. 323, Sept. 26, 1908, p. 622, *VA*.

56. Autogenous, The, soldering of aluminum in aeronautic construction. (Scientific American, New York, v. 98, June 20, 1908, p. 439.) **VA**

Schoop process.

57. Autogenous welding. (Machinery, New York, Eng'ng ed., v. 15, Nov., 1908, p. 191.) **VFA**

Editorial article.

58. Bauschlicher, August. Die autogene Schweißung und das autogene Schneiden. illus. (Zeitschrift für Werkzeugmaschinen und Werkzeuge, Berlin, v. 12, July, 1908, p. 499-503, 519-520.) **VFA**

General in scope, with costs.

59. Bayer Revisions-Verein. Anweisung. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Belichtung, Berlin, v. 12, July 15, 1908, p. 162.) **VGA**

Instructions to inspectors, May 31, 1908.

60. Bennett, Charles F. A welded boiler. illus. (Boiler maker, New York, v. 8, April, 1908, p. 95-96.) **VFA**

61. Bernier, L. L. Application of autogenous welding to boiler shop work. illus. (Boiler maker, New York, v. 8, July, 1908, p. 230-235.) **VFA**

Interesting cost data.

62. — Autogenous welding of metals. High temperatures for industrial purposes obtained by means of burners. illus. (Boiler maker, New York, v. 8, June, 1908, p. [165]-169.) **VFA**

Interesting comparisons of the various types of blowpipes: oxy-acetylene, oxy-hydric, and oxy-gas.

63. Bournonville, Eugene. Autogenous welding by the oxy-acetylene flame. (Metal worker, New York, v. 70, Dec. 19, 1908, p. 50.) **VIA**

Also in Iron age, New York, v. 82, Nov. 26, 1908, p. 1507, *VDA*.

Abstracted in Electrochemical and metallurgical industry, New York, v. 7, Feb., 1909, p. 85-86, *VIA*; Railroad age gazette, New York, v. 46, Jan. 8, 1909, p. 94-95, *TPB*.

Paper read before the Technology Club of Syracuse N. Y., Nov., 1908. Historical data. Comparisons of oxy-hydrogen, oxygen-coal gas and oxy-acetylene processes. Describes high, low, and medium pressure torches.

64. Cave, Henry. The application of autogenous welding to automobile repairs. illus. (Machinery, New York, Eng'ng ed., v. 15, Dec., 1908, p. 266-267.) **VFA**

Also in Railway machinery, New York, v. 8, Dec., 1908, p. 266-267, *VFA*.

65. Cutting steel structures with the oxy-acetylene burner. (Electrochemical and metallurgical industry, New York, v. 6, April, 1908, p. 164.) **VIA**

Abstracted from Acetylen für Wissenschaft und Industrie, Jan. 15, 1908.

Rapid work in taking down a bridge.

66. Das "autogene Schneiden" in patentrechtlicher Beziehung. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, May 15, 1908, p. 111.) **VGA**

Discusses the Köln-Müsener patent and its conflicts. Reply to same in issue of Aug. 15, p. 186-187.

67. Davis, Augustine. The history and present status of the oxy-acetylene process in America. (International Acetylene Association, Proceedings, eleventh annual meeting, Chicago. Chicago, 1908, p. 109-117.) **VOKA**

Abstracted in American engineer & railroad journal, New York, v. 82, Sept., 1908, p. 360-361, *TPB*

— (Acetylene journal, Chicago, v. 10, Oct., 1908, p. 140-143.) **VOA**

68. Delcampe, C. Mechanical details of oxy-acetylene blowpipe. U. S. patent

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

9

847492, Dec. 24, 1907. (Electrochemical and metallurgical industry, New York, v. 6, Jan., 1908, p. 34.) **VIA**

69. Diegel, C. Das Schweißen und Hartlöten mit besonderer Berücksichtigung der Blechschweissung. illus. (Verhandlung des Vereins zur Beförderung des Gewerbeleisses, Berlin, v. 87, 1908, p. 323-346, 355-374, 441-460.) **VA**

Abstracted in Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 53, March 13, 1909, p. 401-406, *VDA*; Dinglers polytechnisches Journal, Berlin, v. 324, 1909, p. 3-7, 19-24, 41-43, *VA*; Glasers Annalen für Gewerbe und Bauwesen, Berlin, v. 69, 1909, p. 71-76, 133-138, *VDA*; Stahl und Eisen, Düsseldorf, v. 29, May 26, 1909, p. 776-784, *VI*. Deals largely with water-gas practice at the works of Julius Pintsch. Tables show detailed results of tests by electric, water-gas and oxy-acetylene processes. Illustrations are noteworthy.

— — — Berlin: L. Simion Nf., 1909. 2 p.l., 64 p., 17 pl. 4°.

70. Ein interessantes Schweißstück. illus. (Dinglers polytechnisches Journal, Berlin, v. 323, Nov. 7, 1908, p. 718-720.) **VA**

Welding of a large steel pipe on the roof of the Royal Opera House, Berlin.

71. Foljambe, E. S. Autogenous welding in auto construction. illus. (Automobile, New York, v. 18, June 25, 1908, p. 877-879.) **TOL**

Abstracted in Boiler maker, New York, v. 8, Oct., 1908, p. 332-333, *VFA*.

Includes tables of comparative cost and of gas consumption.

72. Francis, S. A. Effect of autogenous welding on the metal in the joint. (American machinist, New York, v. 31, part 2, Dec. 3, 1908, p. 824.)

Refers to report in *Stahl und Eisen*.

73. Harris, John. Air-acetylene burner. U. S. patent 878461, Feb. 4, 1908. (Electrochemical and metallurgical industry, New York, v. 6, March, 1908, p. 121.) **VIA**

Patent covers auxiliary supply of oxygen.

74. Hilpert, A. Anwendung der autogenen Schweißung zur Ausbesserung von Dampfkesseln. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, v. 12, Aug. 15, 1908, p. 185-186.) **VGA**

Comparison of electric and autogenous processes.

75. — Die autogene Schweißung in ihrer Anwendung auf Kesselreparaturen. illus. (Dinglers polytechnisches Journal, Berlin, v. 323, June 13, 1908, p. 371-374.) **VA**

Influence of varying conditions shown by curves. Conditions for the most successful welding.

76. — Kesselreparaturen mittels autogener Schweißung. illus. (Dinglers polytechnisches Journal, Berlin, v. 323, 1908, p. 161-165, 185-186, 200-204.) **VA**

Account of welding operations upon boilers of several French vessels.

77. Ist eine Reinigung des zur autogenen Schweißung zu verwendenden Acetylens

erforderlich? (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, Sept. 15, 1908, p. 206-210.) **VGA**

Includes replies from several firms.

78. Knappich, J. Die autogene Schweißung. illus. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, March 1, 1908, p. 49-52.) **VGA**

79. Kommission zur Beratung von Änderungsvorschlägen für die Polizeiverordnung betreffend die Herstellung, Aufbewahrung und Verwendung von Azetylen sowie die Lagerung von Karbid. Bericht, Oct., 1907. (Zeitschrift für Dampfkessel und Maschinenbetrieb, Berlin, v. 31, March 20, 1908, p. 105-107.) **VFA**

80. Lake, Edwin F. Cutting steel with the oxy-acetylene blowpipe. By E. F. L. (American machinist, New York, v. 31, part 2, Nov. 5, 1908, p. 685.)

Report of exhibition at Columbia University.

81. — A handy autogenous welding apparatus. illus. (American machinist, New York, v. 31, part 2, Aug. 13, 1908, p. 236-237.) **VFA**

Portable outfit using a "Prest-o-lite" tank.

82. — Portable oxy-acetylene welding outfit. illus. (American machinist, New York, v. 31, part 2, Nov. 5, 1908, p. 668-670.) **VFA**

Apparatus manufactured by the F. C. Sanford Mfg. Co., of Bridgeport, Conn.

83. Lightfoot, Cecil. The influence of oxygen in extending the use of the oxy-acetylene blowpipe. (International Acetylene Association, Proceedings, eleventh annual meeting, Chicago. Chicago, 1908, p. 35-38.) **VOKA**

Refers to portable cylinders made by the Linde Air Products Company.

— — — (Acetylene journal, Chicago, v. 10, Oct., 1908, p. 143-144.) **VOA**

84. Michaelis, L. Die Acetylen-Sauerstoff-Schweißung. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, June 15, 1908, p. 142-144.) **VGA**

Caustic remarks concerning firms that do inferior work. Ostermann und Flüs reply on page 155 of the July 1st issue.

85. — Benutzung von gelöstem Acetylen für autogene Schweißung. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, Aug., 1908, p. 169-172.) **VGA**

With replies of several firms on p. 172-177, 202. Abstracted in Dinglers polytechnisches Journal, v. 323, Sept. 12, 1908, p. 590, *VA*.

86. Oxy-acetylene methods of welding and cutting metals. illus. (American engineer and railroad journal, New York, v. 82, Jan., 1908, p. 28-29.) **TPB**

Industrial Oxygen Company's process as used by the Worcester Pressed Steel Co.

87. **Oxy-acetylene** process of cutting and welding. (Engineering news, New York, v. 60, Nov. 19, 1908, p. 547-548.) **VDA**
Abstracted in Electrochemical and metallurgical industry, New York, v. 7, Feb., 1909, p. 85-86, *VIA*. Description of different types of gas generators and burners.
88. **Oxy-acetylene** welding and cutting. (Railroad age gazette, New York, v. 45, June 20, 1908, p. 265-266.) **TPB**
Davis-Bournonville process.
89. **Oxy-acetylene** welding and cutting tool. illus. (Railroad age gazette, v. 45, Sept. 18, 1908, p. 967-968.) **TPB**
General discussion with special reference to the Davis-Bournonville process. Costs of welding and cutting are given.
90. **Oxy-acetylene** welding apparatus. illus. (Boiler maker, New York, v. 8, Dec., 1908, p. 395.) **VFA**
Davis-Bournonville apparatus.
91. **Oxy-acetylene** welding process. illus. (Marine engineer and naval architect, London, v. 31, Oct. 1, 1908, p. 70.) **VXA**
Account of boiler repairs on the steamship *Indragiri*.
92. **Oxygenite** and its use in autogenous welding. illus. (Electrochemical and metallurgical industry, New York, v. 6, Oct., 1908, p. 431-432.) **VIA**
A compound, introduced by the Industrial Oxygen Co., which, when heated, supplies oxygen for oxy-acetylene welding.
93. **Portable oxy-acetylene** welding and cutting machine. illus. (Metal worker, New York, v. 70, Aug. 8, 1908, p. 62-63.) **VIA**
Beltzer-Delcamp apparatus. Weighs 750 pounds including generators. Data showing time and expense incurred in cutting steel plate of various thicknesses.
- illus. (Iron age, New York, v. 82, July 16, 1908, p. 176-177.) **VDA**
94. **R. F. E.** Oxy-acetylene process of metal cutting and autogenous welding. illus. (Machinery, New York, Eng'ng ed., v. 15, Oct., 1908, p. 126-127.) **VFA**
Manufacture of the gases. Brief description of Davis-Bournonville torches. Illustrations of a few typical operations.
95. **Reich, W. I.** Autogenous welding. (Metal worker, New York, v. 69, March 21, 1908, p. 60.) **VIA**
Interesting curves showing cost and gas consumption for oxy-acetylene and oxy-hydrogen processes.
- (Iron age, New York, v. 81, Feb. 13, 1908, p. 506.) **VDA**
96. — Some applications of autogenous welding. illus. (American machinist, New York, v. 31, part 1, Feb. 27, 1908, p. 316.) **VFA**
97. **Reischle, J.** Anwendung der autogenen Schweisung zur Herstellung und Ausbesserung von Dampfkesseln. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, May 1, 1908, p. 97-102.) **VGA**
98. **Sauerstoff-Acetylen-Gebläse.** (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, June 15, 1908, p. 140-141.) **VGA**
Account of bridge wrecking.
99. **Schulze.** Autogene Schweisung. (Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 52, Jan. 11, 1908, p. 66-67.) **VDA**
Comparisons of oxy-hydric and oxy-acetylene especially as to cost.
100. **Van Brussel, J. B.** New process for metal cutting and autogenous welding. illus. (Engineering magazine, New York, v. 35, July, 1908, p. 545-557.) **VDA**
101. **Verfahren** zur Ausbesserung von Schienenköpfen mit Hilfe des Acetylen-Sauerstoff-Gebläses. (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, June 1, 1908, p. 130.) **VGA**
Refers to the Rosenthal patent for welding rail heads.
102. **Vogel, J. H.** Welche Anforderungen sind an die Reinheit des zur autogenen Schweisung zu benutzenden Acetylens zu stellen? (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, Nov. 1, 1908, p. 243-245.) **VGA**
Discusses necessity for approved generators and burners, also for mechanical and chemical purification of acetylene.
103. **Welche Anforderungen** sind an Acetylen Apparate zu stellen, die zur autogenen Schweisung benutzt werden? (Zeitschrift für Calciumcarbid-Fabrikation, Acetylen- und Klein-Beleuchtung, Berlin, v. 12, Nov. 1, 1908, p. 242-243.) **VGA**
Discusses gas delivery, burners, and portability of apparatus.
104. **Welding.** illus. (American machinist, New York, v. 31, part 1, March 26, 1908, p. 514-516.) **VFA**
General principles, with comparative merits of electric and autogenous processes.
105. **Welding, The**, of steam boilers. (Power, New York, v. 28, Jan. 21, 1908, p. 105.) **VFA**
106. Zur Frage der autogenen Schweisung von Blechen. illus. (Stahl und Eisen, Düsseldorf, v. 28, July 22, 1908, p. 1063-1065.) **VIA**
Metallographic investigation of welded material. English translation in Acetylene journal, Chicago, v. 10, Dec., 1908, p. 219-220, *VOA*.

1909

107. **Acetylenexplosion** beim Schweissen von Strassenbahnschienen in Hamburg. (Carbid und Acetylen*, Berlin, v. 13, May 15, 1909, p. 118.) **VGA**

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

11

108 Aiken, Claude. Flanging, punching and welding. illus. (American machinist, New York, v. 32, part 1, March 18, 1909, p. 421-424.)

VFA

Oxy-acetylene process used.

109 Anwendung der autogenen Schweißung auf Dampfkesselausbesserungen. illus. (Carbid und Acetylen*, Berlin, v. 13, Dec. 1, 1909, p. 273-274.)

VGA

From Zeitschrift des Bayerischen Dampfkessel Revisions-Vereins, v. 13, no. 18.

110. Auel, C. B. Autogenous welding, with special reference to the use of the oxy-acetylene process. illus. (Electric journal, Pittsburgh, v. 6, Aug., 1909, p. 453-471.)

VGA

Lengthy general article describing apparatus, manufacture of gases, welding of iron, brass, and aluminum.

— — illus. (American machinist, New York, v. 32, part 2, Nov. 18, 1909, p. 858-865.)

VFA

111. Autogenous welding. illus. (Marine engineer and naval architect, London, v. 31, Jan. 1, 1909, p. 181-183.)

VXA

Illustrates repairs on marine boilers.

112. Autogenous welding equipment for light work. illus. (Machinery, New York, Eng'ng ed., v. 15, July, 1909, p. 906-907.)

VFA

Apparatus adapted to the general run of work in the ordinary garage or machine shop.

113. Bach, C. von. Bericht über Versuche mit autogen geschweißten Blechstücken und Kesselteilen. illus. (Zeitschrift für Dampfkessel und Maschinenbetrieb, Berlin, v. 32, April 30, 1909, p. 177-180, May 7, p. 185-188.)

VFA

With discussion on p. 188-191.

— — (In: C. von Bach and R. Baumann, Berichte über Versuche mit autogen geschweißten Blechen... Berlin, 1910. 4°. p. 5-18.)

VDA

114. Beltzer, André. Portable oxy-acetylene welding and cutting machine. illus. (American engineer and railroad journal, New York, v. 83, Jan., 1909, p. 34-35.)

TPB

Beltzer-Delcampé apparatus. Table gives expense for gases in cutting steel plates of various thickness.

115. Bewegliche Acetylenapparate. (Carbid und Acetylen*, Berlin, v. 13, June 1, 1909, p. 132.)

VGA

Abstract from Gewerbeblatt für Württemberg giving comments upon the state regulations for movable apparatus.

116. Cave, Henry. Autogenous welding as a means of repairing cylinders. illus. (Machinery, New York, Eng'ng ed., v. 15, April, 1909, p. 591-592.)

VFA

Repairing of automobile cylinders, water jackets and flanges.

— — (Railway machinery, New York, v. 8, April, 1909, p. 591-592.)

VFA

117. — Autogenous welding effective in repair work. illus. (Automobile, New York, v. 20, March 25, 1909, p. 501.)

TOL

118. — Autogenous welding with oxy-acetylene. illus. (American machinist, v. 32, part 1, Jan. 28, 1909, p. 128-132.)

VFA

The torches used. Methods of generating the gases. Testing oxygen. Rules for welding steel, cast iron, brass, aluminum.

119. — Cylinders repaired by autogenous welding. illus. (Iron age, New York, v. 83, April 15, 1909, p. 1192-1194.)

VDA

120. — High-pressure oxy-acetylene welding. illus. (Electrochemical and metallurgical industry, New York, v. 7, July, 1909, p. 327-329.)

VIA

Claims economy of operation and stronger welds by use of acetylene at 10 lbs. instead of 2 lbs. pressure.

121. — The oxy-acetylene torch as a "putting-on tool." illus. (American machinist, New York, v. 32, part 1, Feb. 4, 1909, p. 181.)

VFA

122. — Repair of machine tool parts by the high pressure oxy-acetylene torch. illus. (American machinist, v. 32, part 2, Sept. 2, 1909, p. 434-435.)

VFA

123. — Welding boilers. (American machinist, New York, v. 32, part 1, June 3, 1909, p. 940.)

VFA

Criticizes cost figures by E. A. Dixie in American machinist, v. 32, part 1, p. 291.

124. — The year's progress in autogenous welding. illus. (International Acetylene Association, [Proceedings], twelfth annual meeting, New York. Chicago, 1909, p. 147-154.)

VOKA

— — (American machinist, New York, v. 32, part 2, Sept. 23, 1909, p. 521.)

VFA

— — (Acetylene journal, Chicago, v. 11, Sept., 1909, p. 116-118.)

VOA

125. Chatelain, E. Soudure autogène et aluminothermie. Préface de H. Le Chatelier. Paris: Gauthier-Villars, 1909. x, 177(1) p. illus. 12°. (Actualités scientifiques).

VID

126. Cobleigh, H. R. Oxy-acetylene welding and cutting. illus. (Iron age, New York, v. 83, Jan. 7, 1909, p. 56-61.)

VDA

An excellent general article.

127. Comparison between oxy-acetylene, oxy-hydrogen and electric welding systems. illus. (Electrochemical and metallurgical industry, New York, v. 7, May, 1909, p. 226-228.)

VIA

Abstracted in American engineer and railroad journal, New York, v. 84, Feb., 1910, p. 46-47, TPB.

128. Convenient, A. welding table. illus. (American machinist, New York, v. 32, part 2, July 8, 1909, p. 92-93.)

VFA

Design of the Autogenous Equipment Company of Springfield, Mass.

- 129.** Cost of welding flues. (Boiler maker, New York, v. 9, Jan., 1909, p. 22.) **VFA**
- 130.** Courtney, M. S. Oxy-acetylene welding. (Boiler maker, New York, v. 9, June, 1909, p. 158.) **VFA**
Includes discussion.
Abstract of paper read before the International Master Boiler Makers' Association. Practice in the Great Northern Railway shops.
- 131.** Crombie, James. Marine boiler repairs by the oxy-acetylene process. illus. (Boiler maker, New York, v. 9, Oct., 1909, p. 278-279.) **VFA**
- 132.** Das autogene Schweißen durch die Sauerstoff-Acetylensflamme. (Carbid und Acetylen*, Berlin, v. 13, Dec. 15, 1909, p. 290.) **VGA**
Table printed originally in "Acetylen," showing comparative heat values in different autogenous processes.
- 133.** Davis, Augustine. Progress of autogenous welding. (Electrochemical and metallurgical industry, New York, v. 7, May, 1909, p. 233-234.) **VIA**
Brief statement of commercial applications of oxy-acetylene process.
- 134.** Deutscher Acetylenverein Betriebsprüfung transportabler Acetylenapparate für Zwecke der autogenen Metallbearbeitung. (Carbid und Acetylen*, Berlin, v. 13, June 1, 1909, p. 125-126.) **VGA**
Several points of the ministerial decree of April 25 are construed.
- 135.** — Fachgruppe für autogene Metallbearbeitung. Bericht über die Sitzung für autogene Metallbearbeitung in München am 20. Februar 1909. (Carbid und Acetylen*, Berlin, v. 13, March 15, 1909, p. 61-70.) **VGA**
- 136.** — Fachgruppe für autogene Metallbearbeitung. Niederschrift der Sitzung der Fachgruppe am 28. Juni in Berlin. (Carbid und Acetylen*, Berlin, v. 13, July 1, 1909, p. 149-152.) **VGA**
Contain amended suggestions for regulations covering movable apparatus and testing.
- 137.** Dixie, E. A. Electric welding in the boiler shop. illus. (American machinist, New York, v. 32, part 1, Feb. 25, 1909, p. 291-297.) **VFA**
Shows comparative costs of electric and gas welding.
- 138.** Flux for autogenous welding of aluminum by oxy-acetylene flame. (Metallurgical and chemical engineering, New York, v. 7, June, 1909, p. 284; v. 8, Jan., 1910, p. 49.)
Schoop (U. S.) patents, 922523, May 25, 1909, and 943164, Dec. 14, 1909.
- 139.** Fowler, William. Fusion welding a link. illus. (American machinist, New York, v. 32, part 1, June 24, 1909, p. 1065.) **VFA**
Describes repair job on a Standard locomotive.
- 140.** Hammond, A. Newton. Use of oxy-acetylene torch in drilling hard spots in cast iron. (American machinist, New York, v. 32, part 1, April 1, 1909, p. 550.) **VFA**
- 141.** Hilbert, A. Ausbesserungen an Schiffskesseln mittels Azetylen-Sauerstoff-Schweissung. (Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 53, Jan. 2, 1909, p. 33-34.) **VDA**
Practice in several European ports. Requirements for successful welding. Comments by J. Reischle are printed in Zeitschrift des Vereines deutscher Ingenieure, v. 53, Jan. 23, 1909, p. 159.
- 142.** Jaeger. Ueber autogenes Schweißen. (Carbid und Acetylen*, Berlin, v. 13, Nov. 15, 1909, p. 257-263.) **VGA**
Results of an investigating tour in France, Germany and Italy.
- 143.** Knappich, J. Die Anwendung von Schweißmitteln und Zugabmaterial bei der autogenen Schweißung. (Carbid und Acetylen*, Berlin, v. 13, June 1, 1909, p. 126-127.) **VGA**
Discusses welding powders and metal welding pencils.
- 144.** — Die Gefahrenmöglichkeiten bei der autogenen Metallbearbeitung und deren Ausschaltung. (Carbid und Acetylen*, Berlin, v. 13, May 15, 1909, p. 114-117.) **VGA**
- 145.** — Welche Gefahren beitet die autogene Metallbearbeitung? illus. (Carbid und Acetylen*, Berlin, v. 13, Dec. 15, 1909, p. 281-288.) **VGA**
Consideration of apparatus to prevent backfiring, also of precautions in the use of portable apparatus.
- 146.** Lake, E. F. Fusion welding apparatus and work. illus. (American machinist, New York, v. 32, part 2, Dec. 9, 1909, p. 988-993.) **VFA**
Portable welding outfit (Oxy-Carbi Company). Description of stationary gas generators, welding and cutting torches. Welding automobile parts, punch-press frames, etc. Illustrations are numerous and interesting.
- 147.** — Welding with the oxygenite process. illus. (American machinist, New York, v. 32, part 1, March 18, 1909, p. 437-440.) **VFA**
Each pound of oxygenite gives off about 5 cubic feet of oxygen which at same time stores itself under pressure of from 150 to 200 pounds. Experience of the Fore River Ship Building Company.
- 148.** Lamberton, E. Ueber das Schweißen des Gussseisens. illus. (Stahl und Eisen, Düsseldorf, v. 29, 1909, p. 2055-2061.) **VIA**
Abstracted in full in Metallurgical and chemical engineering, New York, v. 8, Feb., 1910, p. 102-106, illus. **VIA**
Discusses the oxy-acetylene and other processes. Abstract adds an account of the principal American manufacturers of oxy-acetylene apparatus.
- 149.** Le Chatelier, André. The repair of marine boilers by autogenous welding. (Engineering magazine, New York, v. 36, Feb., 1909, p. 848-850.) **VDA**
Abstract of paper in Revue de métallurgie, Nov. 1908.

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

13

- 150.** **Lester, C. E.** Oxy-acetylene welding. (Boiler maker, New York, v. 9, Oct., 1909, p. 291-292.) **VFA**

Author is general foreman boiler maker of the Erie Railroad. Gives his experience in flue sheet welding.

- 151.** **Levy, Anton.** Patentrechte auf dem Gebiete des autogenen Schneidens. (Carbid und Acetylen*, Berlin, v. 13, Dec. 1, 1909, p. 269-273.) **VGA**

Paper read before the Deutscher Acetylenverein, Sept. 26, 1909. Reviews Cöln-Müsener patents D. R. P. 137588 and 143640.

- 152.** **Neuerungen in Lötapparaten.** illus. (Carbid und Acetylen*, Berlin, v. 13, April 1, 1909, p. 80-84.) **VGA**

Illustrations and brief descriptions of various soldering and welding burners.

- 153.** **Niess.** Das autogene Schweißen und Schneiden, ein neuzeitliches Arbeitsverfahren. (Deutsche Techniker-Zeitung, v. 26, Jan. 16, 1909, p. 26-28.) **VFA**

General article.

- 154.** **Prussia.** — Minister für Handel und Gewerbe. Ministerialerlass betr. den Gebrauch transportabler Acetylenapparate für Zwecke der autogenen Metallbearbeitung. (Carbid und Acetylen*, Berlin, v. 13, May 15, 1909, p. 112-114.) **VGA**

Regulations for the use of the 2 kg. machine.

- 155.** — Ministerialerlass in Preussen betreffend den Gebrauch beweglicher Acetylenapparate für Zwecke der autogenen Metallbearbeitung. (Carbid und Acetylen*, Berlin, v. 13, July 15, 1909, p. 161-162.) **VGA**

Decree of June 18, 1909.

- 156.** **Razing** steel structures with the oxy-acetylene torch. illus. (Iron age, New York, v. 83, March 18, 1909, p. 901.) **VDA**

Use of Beltzer-Delcampe apparatus on the old train shed of the New York Central and Hudson River R.R. in New York City.

- 157.** **Reich, W. I.** A new fusion welding torch and how to weld different metals. illus. (American machinist, New York, v. 32, part 2, Dec. 30, 1909, p. 1147-1149.) **VFA**

Directions for welding cast iron, steel, and aluminum.

- 158.** — Some facts about oxy-acetylene welding. illus. (American machinist, New York, v. 32, part 1, April 29, 1909, p. 686-687.) **VFA**

Tables show results of tests on welded joints.

- 159.** **Rinne, H.** Die autogene Schweißung. illus. (Stahl und Eisen, Düsseldorf, v. 29, Nov. 17, 1909, p. 1814-1820.) **VIA**

Abstracted in Iron age, New York, v. 85, Feb. 24, 1910, p. 452. **VDA**.

Details of method practiced by the Schultz-Knaudt Company of Essen. Pipe and boiler tests.

- 160.** **Rupert, J. W.** Welding boiler tubes to the tube sheet. 7 illus. (American en-

gineer and railroad journal, New York, v. 83, Sept., 1909, p. 354-355.) **TPB**

— (Boiler maker, New York, v. 9, Dec., 1909, p. 346-347.) **VFA**

- 161.** **Schoop, M. U.** Autogenous welding of aluminum. illus. (Electrochemical and metallurgical industry, New York, v. 7, April, 1909, p. 151-153; May, 1909, p. 194.) **VIA**

Discussion of the chemical properties of aluminum with special reference to welding.

- 162.** **Sicherung gegen Explosion an Sauerstoff-Acetylen-Schweissbrennern.** illus. (Carbid und Acetylen*, Berlin, v. 13, Feb. 15, 1909, p. 38-39.) **VGA**

Safety burner manufactured by the Sauerstofffabrik, Berlin. D. R. P. 202795 and 206514.

- 163.** **Springer, J. F.** The oxy-acetylene welding process. illus. (Foundry, Cleveland, v. 36, Dec., 1909, p. 176-180.) **VIA**

Repair of defective castings. Welding castings of uneven thickness. Air cylinder repair. Welding on parts of castings. Cutting metals. Generating tanks.

- 164.** **Thoma, Leo.** Zur Auslesung des Patentes Fouché. (Carbid und Acetylen*, Berlin, v. 13, Sept. 15, 1909, p. 217-218.) **VGA**

- 165.** **Ueber die Eigenschaften der Flamme des Acetylen-Sauerstoffbrenners.** (Carbid und Acetylen*, Berlin, v. 13, June 1, 1909, p. 130.) **VGA**

Abstracted from Revue de la soudure autogène.

- 166.** **Ueber die Temperatur der Acetylen-Sauerstoffflamme im Vergleich mit der Temperatur der Wasserstoff-Sauerstoffflamme.** (Carbid und Acetylen*, Berlin, v. 13, Aug. 1, 1909, p. 181.) **VGA**

Abstract from Revue de la soudure autogène.

- 167.** **Urteil,** Das, in dem Prozesse betreffend das französische Patent über das autogene Schneidverfahren. (Carbid und Acetylen*, Berlin, v. 13, Aug. 15, 1909, p. 193-195.) **VGA**

Patent contest between Société l'oxy-hydrique française and others.

- 168.** **Vogel, J. H.** Die neuesten Ministerialerlassen in Preussen betreffend Aufstellung und Betriebsprüfung beweglicher Acetylenapparate für die Zwecke der autogenen Metallbearbeitung. (Carbid und Acetylen*, Berlin, v. 13, Oct. 1, 1909, p. 221-229.) **VGA**

Discussion of the several Prussian decrees.

- 169.** **Welding and cutting by the oxy-acetylene flame.** illus. (Electrochemical and metallurgical industry, New York, v. 7, Feb., 1909, p. 90-91.) **VIA**

Demonstration by Davis-Bournonville Co. at the meeting of the American Institute of Chemical Engineers.

- 170.** **Willis, T. F.** Autogenous welding by the oxy-acetylene process. (Proceedings,

St. Louis Railway Club, v. 13, April, 1909,
p. 318-323.) **TPB**

General in scope, with list of applications of the process.

— — — (Railway and engineering review, Chicago, v. 49, May 15, 1909, p. 429.) **TPB**

171. Wiss, Ernst. Das autogene Schneiden und das Verfahren der Sauerstoffzerzeugung nach G. Claude. illus. (Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 53, Aug. 28, 1909, p. 1417-1422.) **VDA**

Results of welding heat on test pieces. Metallographic sections are interesting.

172. Younger, A. Scott. Steamship repairs by electric and autogenous welding. illus. (Transactions of the Institution of Engineers and Shipbuilders in Scotland, Glasgow, v. 53, 1909-10, p. 208-247.) **VDA**

With discussion on p. 247-274.

Abstracted in Electrician, London, v. 64, March 18, 1910, p. 923, *VGA*; Elektrotechnik und Maschinenbau, Vienna, May 8, 1910, p. 400-401, *VGA*; Engineering, London, v. 89, p. 285, *VDA*; Elektrotechnische Zeitschrift, Berlin, v. 31, Aug. 11, 1910, p. 823, *VGA*; Electrical review, London, v. 66, April 8, 1910, p. 572-573, *VGA*; Stahl und Eisen, Düsseldorf, v. 31, Nov. 23, 1911, p. 1932-1934, *VIA*; Practical engineer, London, v. 41, p. 232-234, 268-269, 295-296, *VDA*.

Lengthy descriptive paper with comparisons.

— — — (Mechanical engineer, Manchester, v. 25, Feb. 25, 1910, p. 228-233; March 4, p. 265-270.) **VFA**

173. Zur Auslegung des Patentes Fouché. (Carbid und Acetylen *, Berlin, v. 13, 1909, p. 139-143, 173-174, 195-196, 217-218.) **VGA**

Discusses priority claims.

1910

174. Acetylenapparate, Die, für die autogene Schweißung. (Carbid und Acetylen *, Berlin, v. 14, April 15, 1910, p. 90-91.) **VGA**

Critical discussion of various acetylene apparatus. Abstracted from Revue de la soudure autogène.

175. Ausführungsbestimmungen, Die, des neuen englischen Patentgesetzes in Anwendung auf ein Schneidbrenner-Patent. (Carbid und Acetylen *, Berlin, v. 14, Jan. 15, 1910, p. 19-21.) **VGA**

Contest of A. E. Knowles vs. The British Oxygen Company, Ltd.

176. Amédéo, Raoul. Der Sauerstoffverbrauch der Acetylen-Sauerstoff-Schweißbrenner. (Carbid und Acetylen *, Berlin, v. 14, Dec. 1, 1910, p. 270-271.) **VGA**

Interesting discussion of the chemistry of oxy-acetylene flame.

177. Autogenous welding in railway repair shops. illus. (Railway age gazette, New York, v. 49, Nov. 4, 1910, p. 897-898.) **TPB**

Buckeye apparatus manufactured by Walter MacLeod and Company, Cincinnati.

178. Bach, C. von, and R. BAUMANN. Bericht über Versuche mit autogen geschweißten Blechen und Kesselteilen, ausgeführt in der Materialprüfungsanstalt der K. Technischen Hochschule Stuttgart im Auftrage des Internationalen Verbandes der Dampfkessel-Ueberwachungsvereine und des Vereines deutscher Ingenieure, erstattet von...C. Bach und R. Baumann. Berlin, 1910. 3 pl., (1)4-80 p., 16 pl. sq. 4°. (Verein deutscher Ingenieure. Mitteilungen über Forschungsarbeiten auf dem Gebiete des Ingenieurwesens... Heft 83-84.) **VDA**

Detailed record of a notable series of tests on welds with noteworthy illustrations.

179. Baendel, Hugo. Schweismöglichkeiten der verschiedenen Metalle und Legierungen. (Carbid und Acetylen *, Berlin, v. 14, July 1, 1910, p. 145-148.) **VGA**

Discusses welding of cast and malleable iron, copper, aluminum, lead, and nickel.

180. Baumann, R. Bericht über Untersuchungen autogen geschweißter Kesselteile ausgeführt im Frühjahr 1909 im Auftrag des Internationalen Verbandes der Dampfkessel-Ueberwachungsvereine. (In: C. von Bach, and R. Baumann, Berichte über Versuche mit autogen geschweißten Blechen... Berlin, 1910, p. 21-70.) **VDA**

Abstracted in Stahl und Eisen, Düsseldorf, v. 30, Oct. 26, 1910, p. 1853-1855, *VIA*. For the discussion which followed this paper, see Carbid und Acetylen *, Berlin, v. 14, July 15, 1910, p. 158-163, *VGA*.

181. Bauschlicher, August. Zur Entwicklung der autogenen Metallbearbeitung und der hierzu notwendigen Betriebsmittel. illus. (Zeitschrift für Werkzeugmaschinen und Werkzeuge, Berlin, v. 15, Nov. 25, 1910, p. 78-82.) **VFA**

Describes improvements in the process.

182. Beobachtungen bei der Prüfung von Wasservorlagen. (Carbid und Acetylen *, Berlin, v. 14, May 1, 1910, p. 107-108.) **VGA**

Report of the testing and research section of the Deutscher Acetylenverein.

183. Bonding with an oxy-acetylene torch in Minneapolis. illus. (Electric railway journal, New York, v. 36, Sept. 3, 1910, p. 369-370.) **TPB**

Welding of copper rail bonds.

184. Cave, Henry. Autogenous welding equipments compared; a discussion of the relative merits of the high and low pressure systems. illus. (Iron age, New York, v. 86, Aug. 4, 1910, p. 290-292.) **VDA**

185. Conference of oxy-acetylene interests. Regulations proposed for safer construction and use of apparatus. (Iron age, New York, v. 85, May 19, 1910, p. 1187.) **VDA**

Chicago meeting.

186. Cutting steel sheeting with oxy-acetylene blowpipe. (Engineering record, New York, v. 2, Sept. 24, 1910, p. 345.)

VDA

Account of cutting off the tops of sheet piling.

187. Cutting structural steelwork with the oxy-acetylene flame. (Engineering record, New York, v. 62, Aug. 27, 1910, p. 230.)

VDA

Work on the Gillender building, New York City.

188. Davis, Augustine. Dangerous oxy-acetylene apparatus. (Machinery, New York, v. 16, Engineering edition, May, 1910, p. 751-752.)

VFA

Gives reasons for bad repute of some processes, with practice in approved types.

— (Boiler maker, New York, v. 10, May, 1910, p. 133-134.)

VFA

— (American engineer and railroad journal, New York, v. 84, Aug., 1910, p. 338-339.)

TPB

189. Davis, J. M. Oxy-acetylene welding. (Railway age gazette, New York, v. 48, May 6, 1910, p. 1165.)

TPB

Brief reference to practice in the shops of the Colorado and Southern Railway.

190. Deutscher Acetylen-Verein. Bericht über die zwölften ordentlichen Hauptversammlung zu Eisenach. (Carbid und Acetylen*, Berlin, v. 14, 1910, p. 230-241, 245-247, 256-264, 282-287.)

VGA

Contains abstracts of papers and discussions; also report of Dr. A. Levy upon patent litigation relating to autogenous cutting.

191. Deverell, E. C. Oxy-acetylene welding for railroads. (Acetylene journal, Chicago, v. 12, Oct., 1910, p. 156-157.)

VGA

Paper read before the Acetylene Convention, Aug. 5, 1910.

192. Diegel, C. Die autogene Schweißung. illus. (Stahl und Eisen, Düsseldorf, v. 30, Jan. 26, 1910, p. 161-164.)

VIA

Controversy with H. Rinne as to merits of autogenous welding.

193. — Die Untersuchung von autogen geschweißten Blechteilen. (Dinglers polytechnisches Journal, Berlin, v. 325, Sept. 24, 1910, p. 593-596.)

VA

His report of the proceedings of the International Verbandes der Dampfkesseln Überwachungs Vereine zu Lille, June, 1909.

194. Entwicklung, Die, der autogenen Metallbearbeitung in Frankreich. (Carbid und Acetylen*, Berlin, v. 14, Feb. 15, 1910, p. 41-42.)

VGA

Brief but interesting history of the art in France.

195. Evaporate. Some recent boiler repairs by the oxy-acetylene process. illus. (Boiler maker, v. 10, April, 1910, p. 91-93.)

VFA

Renewing half tube sheet, crown sheet, wasted landing edges, bottom of combustion chamber. Closing up cracks in furnaces.

196. Feats with the oxy-acetylene torch; difficult cutting jobs for which it is pecu-

liarily adapted. illus. (Iron age, New York, v. 86, July 21, 1910, p. 172-173.)

VDA
A bank vault of steel rails and chrome steel bars imbedded in cement, cut with the oxy-acetylene torch by the Autogenous Welding Equipment Company of Springfield, Mass.

197. Frankfurt a M.—Kgl. Landgerichtes (6. Zivilkammer). Teilurteil betreffend das autogene Schneiden. (Carbid und Acetylen*, Berlin, v. 14, May 1, 1910, p. 98-106.)

VGA
Decision *in re* Chemische Fabrik Griesheim-Elektron versus 27 firms for infringement of D. R. P. 137588, 140149, 143640, 147541, 151299, 161273.

198. Friedmann, Immanuel. Anwendung der autogenen Schweißung auf Dampfkesselausbesserungen. (Carbid und Acetylen*, Berlin, v. 14, Jan. 15, 1910, p. 16-17.)

VGA
Abstracted from Zeitschrift des Bayerischen Dampfkessel Revisions-Vereines.

199. Hartline, George. Oxy-acetylene welding. (Acetylene journal, Chicago, v. 12, Dec., 1910, p. 248-249.)

VOA
Paper read before the Railroad Master Blacksmiths' Convention. Cost figures of cutting.

200. Herzfeld, Hans. Neue Anwendung der entleuchteten Flamme zum Schweißen, Löten und Trennen der Metalle mit Experimenten. illus. (Verhandlungen des Vereins zur Beförderung des Gewerbeleisses, Berlin, 1910, v. 89, p. 331-336.)

VA
Describes apparatus manufactured in the factory of Herr Herzfeld.

201. Hopfer. Die Selbstherstellung von Wasserstoff und Sauerstoff durch Elektrolyse für autogene Schweißung. (Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 54, Feb. 12, 1910, p. 279-281.)

VDA
Paper read before the Leipzig branch of the society. Description of apparatus with costs of gas production.

— (Carbid und Acetylen*, Berlin, v. 14, 1910, p. 56-58, 68-70.)

VGA
202. Jacobs, H. W. Autogenous welding in a railway shop. illus. (Railway age gazette, New York, v. 48, June 17, 1910, p. 1535-1539.)

TPB
Author is assistant superintendent of motive power, A. T. and S. F. Ry. Discusses plant and costs.

203. Lake, E. F. Oxy-acetylene welding apparatus. (American machinist, New York, v. 33, part 2, Sept. 8, 1910, p. 436-438; Sept. 22, p. 529-31.)

VFA
Consideration of torches, flashback preventers, effect of flame on metal being welded, gas impurities, tanks and generators, safety, lubrication of gas compressors.

204. Lauer, W. T. Oxy-acetylene welding. (Railway age gazette, New York, v. 48, May 6, 1910, p. 1165.)

TPB
With discussion.
Discussion of the process in railroad shop work.

- 205. Lavinder, P. T.** Oxy-acetylene welding. illus. (*Acetylene journal*, Chicago, v. 12, Dec., 1910, p. 249.) **VOA**
Paper read before the Railroad Master Blacksmiths' Convention.
- 206. Leeds, F. H., and W. J. A. BUTTERFIELD.** Acetylene; the principles of its generation and use. A practical handbook on the production, purification, and subsequent treatment of acetylene for the development of light, heat, and power. London: C. Griffin and Co., Ltd., 1910. xi, 396 p., 2 tables. illus. 2. ed. 8°. (Griffin's scientific text-books.) **VOF**
Brief references to welding on p. 257-258, 293.
- 207. McDonald, A. J.** Oxy-acetylene welding and cutting; a consideration of the value of the process for automobile work. illus. (*Automobile engineer*, London, v. 1, Dec., 1910, p. 197-199.) **†TOL**
Discusses the three types of torches. Eye test for flame. Instructions.
- 208. Michaelis, Max.** Ueber Wasserverschlüsse. (*Carbid und Acetylen**, Berlin, v. 14, Dec. 1, 1910, p. 274-279.) **VGA**
- 209. Morrison, A. Cressy.** Oxy-acetylene in metal working. (*American machinist*, New York, v. 33, part 2, Nov. 24, 1910, p. 962-963.) **VFA**
General in scope.
— (Acetylene journal, v. 12, Feb., 1911, p. 337-338.) **VOA**
- 210. National Board of Fire Underwriters.** Rules and requirements for the construction, installation and use of oxy-acetylene heating and welding apparatus as recommended by its committee of consulting engineers. n. p., 1910. 29 p. 24°. **SX p.v.4**
- 211. Oxy-acetylene cutting.** illus. (*Metallurgical and chemical engineering*, New York, v. 8, March, 1910, p. 164.) **VIA**
Holes 13 feet in diameter cut in steel piling.
- 212. Oxy-acetylene welding.** illus. (*American engineer and railroad journal*, New York, v. 84, March, 1910, p. 110-111.) **TPB**
Repairing flue sheet of locomotive fire-box, boiler plate, and of flywheel spokes. Oxy-carbi process.
- 213. Oxy-acetylene welding for power plants.** (*Power*, New York, v. 32, Feb. 8, 1910, p. 282.) **VFA**
Welding of cast iron threaded flanges of a steam header to pipe.
- 214. Peculiar oxygen tank explosion.** (*American machinist*, v. 33, part 1, March 10, 1910, p. 474-475.) **VFA**
Explosion in automobile repair shop of Alton, Laine and Co., New York City. Acetylene seems to have played no part.
- 215. Perkins, Frank C.** Autogenous welding in automobile repair shops. illus. (*Modern machinery*, Chicago, v. 25, May, 1910, p. 2-4.) **VFA**
- 216. —** A striking oxy-carbi boiler fusion weld. illus. (*Boiler maker*, New York, v. 10, March, 1910, p. 61-63.) **VFA**
Method of welding a patch in the flue sheet of fire-box.
- 217. Ragno, Saverio.** Die autogene Schweißung der Metalle. Ins Deutsche übertragen von E. Schütz. Halle a. S.: Wilhelm Knapp, 1910. 5 p., 1 l., 84 p. 8°. **VID**
- 218. Reich, W. I.** Emergency welding apparatus. illus. (*American machinist*, v. 33, part 1, April 21, 1910, p. 730-731.) **VFA**
24 H. P. Darracq automobile remodeled and equipped with complete outfit.
- 219. Reyer, William G., and R. W. CLARK.** Oxy-acetylene welding and cutting. illus. (*Railway age gazette*, New York, v. 49, Aug. 5, 1910, p. 242-244.) **TPB**
Practical discussion on the welding of side sheets of fire-box.
- 220. Rinne, H.** Die autogene Schweißung. illus. (*Stahl und Eisen*, Düsseldorf, v. 30, Jan. 26, 1910, p. 164-165.) **VIA**
Controversy with C. Diegel as to merits of auto-geneous welding.
- 221. Safety in oxy-acetylene outfits.** (*American machinist*, New York, v. 33, part 1, March 10, 1910, p. 469.) **VFA**
Editorial on Alton, Laine and Company's explosion.
- 222. Schwarz, Rudolf.** Einiges über autogene Metallbearbeitung im Maschinenbau. illus. (*Werkstatts Technik*, Berlin, v. 4, Oct., 1910, p. 583-586.) **VFA**
Typical of manufacturing and repairing.
- 223. Smith, H. S.** Oxy-acetylene welding. (*Journal of the Royal Society of Arts*, London, v. 58, Feb. 25, 1910, p. 372-381.) **VA**
Abstracted in *Carbid und Acetylen*, Berlin, v. 14, June 15, 1910, p. 142, *VGA*.
Comparison with electric and oxy-hydric processes. Strength of welds. Description of high and low pressure plants. Generators. Acetylene purifiers. Table showing gas consumption and speed for varying plate thicknesses. Classes for which the system is best adapted.
- 224. Springer, J. F.** The oxy-acetylene blowpipe. illus. (*Railway and locomotive engineering*, New York, v. 23, Oct., 1910, p. 404.) **TPB**
General in scope.
- 225. —** Oxy-acetylene welding. illus. (*Boiler maker*, New York, v. 10, Nov., 1910, p. 315-319.) **VFA**
Describes Davis-Bournonville torch; also typical welds of boilers, refrigeration apparatus, fire box, and Jacobs superheater.
- 226. —** The oxy-acetylene welding process; chemical reactions and typical application to foundry repairs. illus. (*Iron age*, New York, v. 85, June 16, 1910, p. 1466-1469.) **VDA**
Describes the Davis-Bournonville torch. Procedure. Necessity of preheating explained. Typical repairs.

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

17

227. — The acetylene welding torch. illus. (American engineer and railroad journal, New York, v. 84, Nov., 1910, p. 431-433.) **TPB**

A discussion on the mixing of gases in the tip of a welding torch, how the high temperature is maintained, and why it is necessary. How the danger of explosion has been eliminated and the method of using the torch.

228. Suscipi, L. G. A new flux for oxy-acetylene welding of aluminum. (Acetylene journal, Chicago, v. 12, Nov., 1910, p. 204-205.) **VOA**

229. Syo, E. de. Beiträge auf dem Gebiete der autogenen Metallbearbeitung. (Carbid und Acetylen*, Berlin, v. 14, Sept. 1, 1910, p. 201-202.) **VGA**

Remarks on the article by Baendel in the number of July 1, 1910.

230. Treiber, E. Schweißen. illus. (In: Otto Lueger, Lexikon der gesamten Technik, Stuttgart, 2d. ed., v. 8, 1910, p. 7-14.) **Desk - Room 115**

Pages 11-12 contain a brief account of oxy-acetylene welding.

231. Ueber den Einfluss der im Acetylen enthaltenden Phosphors auf Schweißungen. (Carbid und Acetylen*, Berlin, v. 14, Sept. 15, 1910, p. 214.) **VGA**

Abstract from Revue générale de l'acétylène.

232. Ueber die Reglementierung der tragbaren Acetylenapparate. (Carbid und Acetylen*, Berlin, v. 14, Feb. 1, 1910, p. 34.) **VGA**

French regulations abstracted from Revue générale de l'acétylène

233. Vogel, J. H. Bericht über die Sitzung der Fachgruppe für autogene Metallbearbeitung des Deutschen Acetylenvereins in München, Feb. 5, 1910. (Carbid und Acetylen*, Berlin, v. 14, March 1, 1910, p. 49-56.) **VGA**

Discussion concerning water seals to prevent flash-back.

234. Whittemore, Herbert L. The strength of oxy-acetylene welds in steel. Urbana, Ill., 1910. 65 p., 2 pl. 8°. (University of Illinois. Engineering Experiment Station. Bulletin 45.) **VDA**

Abstracted in Wisconsin engineer, Madison, Wis., v. 15, Jan., 1911, p. 149-166, **VDA**; Boiler maker, New York, v. 11, Feb., 1911, p. 52, **VFA**; Railway age gazette, New York, v. 50, Apr. 7, 1911, p. 837, **TPB**; Engineering magazine, New York, v. 41, May, 1911, p. 338-340, **VDA**; Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 55, July 15, 1911, **VDA**; Stahl und Eisen, Düsseldorf, v. 31, June 29, 1911, p. 1060, **VIA**; Railway master mechanic, Chicago, v. 35, May, 1911, p. 170-172, **TPB**.

235. Willenbacher, A. Die Knappichsche Sicherheits Wasser-Vorlage im Dienste der autogenen Metallbearbeitung. illus. (Carbid und Acetylen*, Berlin, v. 14, Oct. 1, 1910, p. 219-222.) **VGA**

Detailed description of Knappich patent.

236. Zur Frage des Sauerstoffsverbrauches der Acetylen-Sauerstoff Schweißbrenner.

(Carbid und Acetylen*, Berlin, v. 15, Feb. p. 270-271. 15, 1911, p. 42-43.) **VGA**

Editorial contest between Messrs. Michaelis and Granjon regarding Amédéo's paper on water seals in Carbid und Acetylen*, Berlin, v. 14, Dec. 1, 1910.

1911

237. Acetylene and its uses. illus. (Automobile, New York, v. 25, Nov. 23, 1911, p. 904-905.) **TOL**

General in scope.

238. Acetylene welding and cutting. illus. (Automobile, New York, v. 25, Dec. 28, 1911, p. 1143-1144.) **TOL**

Abstracts from German articles.

239. Acetylene welding and cutting machine. illus. (Canadian engineer, Toronto, v. 21, Aug. 31, 1911, p. 249-250.) **VDA**

Davis-Bourronville apparatus.

— — — (Practical engineer, London, v. 44, Sept. 29, 1911, p. 401-402.) **VDA**

— — — (Cassier's magazine, v. 40, Oct., 1911, p. 564-566.) **VDA**

240. Amédéo, Raoul. Die autogene Schweißung des Aluminiums. (Carbid und Acetylen*, Berlin, v. 15, Feb. 1, 1911, p. 29-32.) **VGA**

From Revue de la soudure autogène. English translation in Acetylene journal, Chicago, v. 12, Oct., 1910, p. 157, 181-183, 186, **VOA**.

241. Autogenous welding by the "Cyclone" process. illus. (Iron and coal trades review, London, v. 83, Nov. 24, 1911, p. 850.) **VIA**

Apparatus manufactured by Messrs. Matthews and Yates, Ltd., Cyclone Works, Manchester, Eng.

242. Becker. Winke für die Wahl und den Ankauf von Apparaten zur autogenen Schweißung. (Der praktische Maschinen-Konstrukteur, Leipzig, v. 44, Nov. 11 1911, p. 351-353.) **VDA**

Describes the four types of generators. Brief reference to burners of general and special types.

243. Beitrag zur Frage der Betriebsprüfung von Acetylen-Apparaten und Wasservorlagen. Ein Briefwechsel. (Carbid und Acetylen*, Berlin, v. 15, May 15, 1911, p. 109-121.) **VGA**

Opinion of Deutscher Acetylen Verein on two petitions, filed with the Minister für Handel und Gewerbe by "Autogen" Werke für autogene Schweiss-Methoden G. m. b. H.

244. Bentley, H. T. Oxy-acetylene welding. (Proceedings, Western Railway Club, Chicago, v. 24, Sept. 19, 1911, p. 38-45.) **TPB**

Includes discussion.

Abstracted in American engineer and railroad journal, v. 85, Dec., 1911, p. 446, **TPB**; Railway age gazette, New York, v. 51, Nov. 3, 1911, p. 899, **TPB**; Railway master mechanic, Chicago, v. 35, Dec., 1911, p. 548, **TPB**.

Discussion recounts the experiments of several of the members.

245. Carnevali, F. Autogenous welding of metals; oxy-acetylene process for iron,

steel, and pig iron. illus. (Journal of the Iron and Steel Institute, London, v. 84, 1911, part 2, p. 188-214.) **VIA**

Abstracted in the Journal of the Society of Chemical Industry, London, v. 30, Oct. 31, 1911, p. 1217-1218, *VOA*. Metallurgie, Halle a. S., v. 9, Feb. 8, 1912, p. 110-111, *VIA*.

Comparison of oxy-acetylene with other processes. Conditions for securing good results. Tables show results of mechanical trials and chemical analysis on test pieces subjected to certain thermal and mechanical treatments.

246. Carton, Chester. Rebuilding Quebec's fallen bridge. illus. (Technical world magazine, Chicago, v. 15, May, 1911, p. 336-340.) **VDA**

Brief reference to oxy-acetylene used in cutting away wreckage.

247. Cave, Henry. Oxy-acetylene practice: its wide adaptability and progress. illus. (Acetylene journal, Chicago, v. 12, March, 1911, p. 377-378.) **VOA**

General in scope.

248. Clark, R. W. Oxy-acetylene welding. (Railway age gazette, New York, v. 50, April 7, 1911, p. 847-848.) **TPB**

Author is foreman boiler maker of the Nashville, Chattanooga and St. Louis Railway. Refers briefly to fire-box welding.

249. Compact, A. plant for oxy-acetylene welding. illus. (Iron and coal trades review, London, v. 82, May 5, 1911, p. 702.) **VIA**

Apparatus manufactured by McGowan, Wild & Company, Hurst Street, Birmingham, England.

250. Cponony, A. [Electric and gas welding.] (Proceedings, Canadian Railway Club, Montreal, v. 10, Nov., 1911, p. 38-41.) **TPB**

Experiences with oxy-acetylene, blauges, and oxy-hydrogen.

— — — (Railway and engineering review, Chicago, v. 52, Feb. 17, 1912, p. 143-145.) **TPB**

251. Courtney, W. F. Advantages and disadvantages of using the oxy-acetylene process in making repairs to boilers. (Railway age gazette, New York, v. 50, June 2, 1911, p. 1265-1266.) **TPB**

Abstract of paper read before the International Master Boiler Makers Association, Omaha, 1911.

252. D. Neuere englische Apparate zum Schneiden und Schweissen von Metallen. illus. (Der praktische Maschinen-Konstrukteur, Leipzig, v. 44, Oct. 12, 1911, p. 341-342.) **VDA**

Apparatus of the British Oxygen Company.

253. Davis-Bourbonville oxy-acetylene welding and cutting machine. illus. (Machinery, New York, v. 18, Eng'ng ed., Sept., 1911, p. 65-66.) **VFA**

254. Deutscher Acetylen-Verein. Bericht über die dreizehnte ordentliche Hauptversammlung in Eisenach. (Carbid und

Acetylen*, Berlin, v. 15, 1911, p. 233-246, 249-255, 272-273.) **VGA**

Contains lengthy address on the acetylene industry by Dr. Vogel, with reference to oxy-benz process.

255. — Bericht über die Sitzung der Fachgruppe für autogene Metallbearbeitung in München am 25. Februar 1911. (Carbid und Acetylen*, Berlin, v. 15, April 1, 1911, p. 74-76.) **VGA**

Includes paper of Dr. Levy concerning the 6 day course of instruction under Hugo Baendel.

256. Die vom Deutschen Acetylenverein für die Zwecke der autogenen Metallbearbeitung bis zum 31. Dezember 1910 geprüften und mit einem Typenzeugnis versehenen Wasservorlagen. illus. (Carbid und Acetylen*, Berlin, v. 15, 1911, p. 85-92, 183-188.) **VGA**

Detailed drawings of water seals manufactured by various firms.

257. Diegel, C. Einige Versuche mit der autogenen Schweißung von Flusseisen. illus. (Verhandlungen des Vereins zur Beförderung des Gewerbeleisses, Berlin, v. 90, 1911, p. 78-90, 211-237, 269-283.) **VA**

Results of an elaborate series of tests on welds produced under varying conditions. Photographic reproductions of metallographic specimens are noteworthy.

258. Economy, The. welding machine. illus. (Iron age, New York, v. 88, Nov. 9, 1911, p. 1037.) **VDA**

Portable apparatus of the Economy Welding Machine Company, Kansas City, Mo.

259. Elliott, Louis. The repair of a 9500 foot leaky steel plate pipe line at Boulder, Colo., by oxy-acetylene welding. illus. (Engineering news, New York, v. 66, Nov. 16, 1911, p. 586-588.) **VDA**

260. Explosion of acetylene gas generator supplying oxy-acetylene welding apparatus. illus. (Quarterly of the National Fire Protection Association, Boston, v. 5, July, 1911, p. 50-55.) **SXA**

Abstracted in Engineering news, New York, v. 66, Aug. 31, 1911, p. 271-272, *VDA*. Failure ascribed to generator's rawhide safety valve.

261. Horn, August. Die autogenous Schweiß- und Schneidetechnik... Halle a.S.: Wilhelm Knapp, 1911. vii, 210 p., 1 l., 1 diagr. illus. 8°. **VID**

262. Interesting application of the oxy-acetylene cutting process. illus. (American machinist, New York, v. 34, Feb. 2, 1911, p. 227.) **VFA**

Cutting of steel sections in Cincinnati Chamber of Commerce building destroyed by fire.

263. International Acetylene Association. Report of the oxy-acetylene committee. (In: [Proceedings,] fourteenth annual meeting, Atlantic City, N. J. Chicago, 1911, p. 54-58.) **VOKA**

Reports progress of the industry during the year.

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

19

264. Jacobs, H. W. Welding locomotive repair parts. illus. (American machinist, New York, v. 35, part 2, Nov. 16, 1911, p. 913-916.) **VFA**
 Savings effected by oxy-acetylene. Author is assistant superintendent of motive power, A. T. & S. F. Railway.
265. Kautny, Theodor. List of uses and work done by oxy-acetylene blowpipe. (International Acetylene Association, *[Proceedings]*, fourteenth annual meeting, Atlantic City, N. J. Chicago, 1911, p. 59-63.) **VOKA**
 Refers to exhibits of the Society of German Sheet Metal Workers and Plumbers.
266. Lavender, P. T. Oxy-acetylene welding and cutting. (Railway age gazette, New York, v. 51, Sept. 1, 1911, p. 438-439.) **TPB**
 Paper read before the Master Blacksmiths Association. General statement regarding adaptability of oxy-acetylene to railroad work.
267. Law, E. F., and others. Some studies of welds. illus. (Journal of the Iron and Steel Institute, London, v. 83, 1911, p. 103-116.) **VIA**
 Abstracted in the Mechanical engineer, Manchester, v. 27, May 12, 1911, p. 570-573. **VFA**, Electrical review, London, v. 68, June 2, 1911, p. 900-901. **VGA**; Stahl und Eisen, Düsseldorf, v. 31, June 15, 1911, p. 978. **VIA**; Iron age, New York, v. 88, July 27, 1911, p. 200. **VDA**.
 Results of tests on electrical, water-gas, thermit, fire, and acetylene welds. Photographic reproductions of metallographic sections are noteworthy.
268. Massenfabrikation von Rohren vermittelst autogener Schweißung. illus. (Carbid und Acetylén*, Berlin, v. 15, June 1, 1911, p. 128-129.) **VGA**
 Describes briefly the automatic apparatus of Ostermann & Flüs.
269. Mauran, Max. Oxygen for welding. (International Acetylene Association, *[Proceedings]*, thirteenth annual meeting, Chicago, 1911, p. 68-69.) **VOKA**
 Brief remarks on lavoisite, which gives off oxygen upon addition of hot water.
270. Metal-cutting and welding blowpipes. illus. (Engineering, London, v. 91, Jan. 6, 1911, p. 15-16.) **VDA**
 Cross section drawings of apparatus manufactured by the British Oxygen Company, Limited, of London.
271. Morehead, J. M. Acetylene welding. illus. (Official proceedings of the New York Railroad Club, New York, v. 21, June, 1911, p. 2432-2469.) **TPB**
 With discussion.
 Bibliography, p. 2444-2445. Adaptability and advantages. Results of tests on cutting power of oxygen of varying purity.
- — Without bibliography or discussion. (Acetylene journal, Chicago, v. 13, 1911, p. 65-66, 80-85, 266-267.) **VOA**
272. — Acetylene welding and welding schools in Europe. (International Acetylene Association. *[Proceedings]*, fourteenth annual meeting, Atlantic City, N. J. Chicago, 1911, p. 64-71.) **VOKA**
 With discussion.
- — (Acetylene journal, Chicago, v. 13, Sept., 1911, p. 126-129.) **VOA**
- — (Engineering news, New York, v. 67, April 18, 1912, p. 716-717.) **VDA**
273. New portable welding machine. A recent product of the Oxy-Carbi Company. illus. (Iron age, New York, v. 88, Sept. 21, 1911, p. 628-629.) **VDA**
274. New, A, portable welding machine. illus. (Metal worker, New York, v. 76, Nov. 17, 1911, p. 645-646.) **VIA**
 Machine of the Economy Welding Machine Company of Kansas City, Mo.
275. Oxy-acetylene process and the steel car. illus. (Railway and locomotive engineering, New York, v. 24, May, 1911, p. 198-199.) **TPB**
 — (Railway master mechanic, Chicago, v. 35, May, 1911, p. 184-185.) **TPB**
276. Oxy-acetylene torch in cutting metals. (Boiler maker, New York, v. 11, 1911, p. 320.) **VFA**
 Procedure. Time consumed in cutting.
277. Oxy-acetylene welding and cutting. illus. (Railway age gazette, v. 50, June 21, 1911, p. 1615-1617.) **TPB**
 Describes oxygen-hydrogen generators of the International Oxygen Company.
278. Oxy-acetylene welding and cutting machine. illus. (Railway age gazette, New York, v. 51, Oct. 6, 1911, p. 673-674.) **TPB**
 Davis-Bournonville machine.
279. Oxy-acetylene welding for joining high-pressure city gas pipes. illus. (Acetylene journal, Chicago, v. 12, April, 1911, p. 425-426.) **VOA**
 Experiments at Nuneaton, England, by Mr. George Helps.
280. Oxy-acetylene welding for steel passenger cars. illus. (Railway age gazette, New York, v. 50, May 5, 1911, p. 1055-1057.) **TPB**
 Welding of roof plates, panel friezes, door frames, window frames, grab handles, head lining sheets.
281. Oxy-acetylene welding menaced. (Metal worker, New York, v. 76, Nov. 17, 1911, p. 643.) **VIA**
 Editorial comment on Massachusetts restrictions.
282. Oxy-acetylene welding on boilers. illus. (American engineer and railroad journal, New York, v. 85, July, 1911, p. 259.) **TPB**
 Brief statement of fire-box patching as effected by apparatus of the Linde Air Products Company.

- 283.** Oxy-acetylene welding of sheets. illus. (Metal worker, New York, v. 75, April 29, 1911, p. 564.) **VIA**
Finishing invisible joints in steel cars. Economy of the process.
- 284.** Portable autogenous welding equipment. The Oxy-Carbi Company's latest apparatus. illus. (Iron age, New York, v. 86, Sept. 22, 1910, p. 672-673.) **VDA**
- 285. Prussia.** — Minister für Handel und Gewerbe. Erlasse betreffend die Verwendung des vom Deutschen Acetylenverein für die Zwecke der autogenen Metallbearbeitung geprüften Wasservorlagen. (Carbid und Acetylén*, Berlin, v. 15, Jan. 15, 1911, p. 14-15.) **VGA**
Decree of December 23, 1910. Supplement published in Carbid und Acetylén*, v. 15, June 1, 1911, p. 128.
- 286. Richter, Hermann.** Die autogene Metallbearbeitung und ihre Verwendung in Hamburg. illus. (Carbid und Acetylén*, Berlin, v. 15, Dec. 1, 1911, p. 279-285.) **VGA**
Outline of welding course at the Staatlichen Technikum. Experiences of the Hanseatic Acetylen-Gas-Industrie A. G. and the Ottenser Eisenwerke with boiler repairs.
- 287 Rules** governing oxy-acetylene apparatus. (American machinist, New York, v. 34, Jan. 12, 1911, p. 79-80.) **VFA**
Refers to booklet issued by the National Board of Fire Underwriters.
— (Boiler maker, New York, v. 11, Feb., 1911, p. 51-52.) **VFA**
- 288 Saving** by oxy-acetylene welding. Lake Shore and Michigan Southern Railway. Carefully kept records of the work performed by the oxy-acetylene welding apparatus, in use at the Collingwood shops, have shown some very surprising money-savings resulting from the general and varied use of the apparatus for many purposes at first unthought of. illus. (American engineer and railway journal, New York, v. 85, June, 1911, p. 203-206.) **TPB**
Abstracted in Boiler maker, New York, v. 11, 1911, p. 261, *VFA*.
The diagrams are interesting.
- 289. Schneider, Alfred.** Die an die Konstruktion der Wasservorlagen zustellenden Grundsätze. illus. (Carbid und Acetylén*, Berlin, Dec. 15, 1911, p. 289-297.) **VGA**
With discussion.
- 290. Schweissbrenner.** (Carbid und Acetylén*, Berlin, v. 15, Jan. 1, 1911, p. 11.) **VGA**
Question and editorial reply concerning mistranslation of Amédéo's paper in number of Dec. 1, 1910.
- 291. Sheet metal work for automobiles.** illus. (American machinist, v. 35, July 13, 1911, p. 65.) **VFA**
Process of "tacking" by oxy-acetylene flame at plant of the E. M. F. Company.
- 292. Springer, J. F.** Acetylene welding and cutting machine. illus. (Brass world and platers' guide, Bridgeport, Conn., v. 7, Sept., 1911, p. 322-324.) **VIA**
Davis-Bournonville machine for sheet metal work.
- 293.** — Cutting and welding with the oxy-acetylene torch. illus. (Industrial engineering and the engineering digest, New York, v. 9, April, 1911, p. 270-276.) **VA**
The methods, with cost data on a number of representative jobs.
- 294.** — Cutting with the oxy-acetylene torch. (Boiler maker, New York, v. 11, Feb., 1911, p. 43-47.) **VFA**
General principles. Demolition of bridge over the Harlem River, in which the work was done in one week at a gas cost of \$42.00. Cutting of large steel tank of half-inch sheets. Cost estimates.
- 295.** — The oxy-acetylene cutting torch ... illus. (American engineer and railroad journal, New York, v. 85, Feb., 1911, p. 62-64.) **TPB**
Similar to his article in Boiler maker, v. 11, Feb., 1911, p. 43-47.
- 296.** — Oxy-acetylene welding and the Edison storage battery can. illus. (Machinery, New York, Eng'ng ed., v. 18, Sept., 1911, p. 26-29.) **VFA**
Operation in detail. Precaution to avoid oxidation.
- 297.** — Welding and cutting machine. Interesting development of acetylene blow-pipe working. illus. (Iron age, New York, v. 88, Aug. 31, 1911, p. 472-473.) **VDA**
Davis-Bournonville apparatus.
- 298.** — Welding and cutting thin sheets. illus. (Metal worker, New York, v. 76, Sept. 1, 1911, p. 314-315.) **VIA**
Development of machine for rapidly joining sheets thinner than five gauge or for cutting materials of even greater thickness. Davis-Bournonville machine.
- 299. Steel cutting with the oxy-acetylene torch.** Data regarding costs and special uses. illus. (Iron age, New York, v. 87, March 9, 1911, p. 622-624.) **VDA**
Davis-Bournonville process.
- 300. Syo, E. de.** Autogenes Schweißen von Schmiedeeisen und Stahl mittels der Oxy-Azetylenflamme. (Der praktische Maschinen-Konstrukteur, Leipzig, v. 44, Nov. 11, 1911, p. 381-384.) **VDA**
Chemical principles of melting. Necessity of rapid welding. Table showing time required for welding plates of varying thicknesses. Use of test pieces. Management of the flame. Amèdeò's table showing proper diameter of welding wire for varying plate thicknesses.
- 300a.** — Autogenous Schweißen, Löten, Nieten usw. Leipzig: Uhlands technischer Verlag [1911]. vii, 145(1) p. 8°. (Uhlands technische Bibliothek.) **VID**

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

21

301. Thoma, Leo. Acetylen-Sauerstoff-Schweissbrenner. illus. (Carbid und Acetylen, Berlin, Nov. 15, 1911, p. 261-271.) **VGA**
 Results of a long series of investigations of several forms of apparatus. Tables, illustrations, and curves are noteworthy.
302. — Sauerstoff-Druck-Reduzierventile. illus. (Carbid und Acetylen *, Berlin, v. 15, Jan. 1, 1911, p. 1-11.) **VGA**
 Detailed descriptions and drawings of apparatus manufactured by Deutscher Oxyhydric G. m. b. H., Eller-Düsseldorf; Keller und Knappich G. m. b. H., Augsburg; Gaudet und Bigand, Fontenay; and Sauerstofffabrik, Berlin.
303. Thomas, R. Les applications du chalumeau oxy-acétylénique. illus. (Bulletin technologique, Paris, July, 1910, p. 974-1003; Jan., 1911, p. 5-56.) **VA**
 Table showing amounts of oxygen and acetylene with time required for cutting sheets up to 100 millimeters in thickness. Rivet cutting. Rail welding with comparative cost data. Steamship and boiler repairs. Locomotive construction. An important paper.
304. Tucker, Alexander E. The influence of impurities in oxygen when used for cutting iron and steel. illus. (Journal of the Society of Chemical Industry, London, v. 30, July 15, 1911, p. 779-781.) **VOA**
 With discussion on p. 781-782.
 Refers mainly to oxy-hydrogen operations.
305. Vogel, J. H. Das Acetylen; seine Eigenschaften, seine Herstellung und Verwendung. Unter Mitwirkung von A. Levy-Ludwig, A. Schulze, A. Schneider, P. Wolff. Leipzig: O. Spamer, 1911. viii, 294 p. illus. 8°. (Chemische Technologie. Spezieller Teil.) **VOF**
 For chapter on welding and welding apparatus see pages 180-208.
306. Welchen Umfang hat das Fouché-Patent No. 164180 die Konstruktion von Schweissbrenner betreffend? (Carbid und Acetylen *, Berlin, v. 15, 1911, p. 149-151, 164-167.) **VGA**
307. Welding, The, Company. (Iron age, New York, v. 87, Jan. 5, 1911, p. 49.) **VDA**
 Announcement of the Autogenous Welding Equipment Company, Springfield, Mass.
308. White, Edwin H. Safety in oxy-acetylene installations. (American machinist, New York, v. 35, July 6, 1911, p. 8-9.) **VFA**
 The nature of acetylene. Use of acetone as a solvent. Relative economy of generator and tank.
309. — — (American machinist, New York, v. 35, Aug. 3, 1911, p. 225-226.) **VFA**
 Carbide-fed versus water-fed generators. Question of pressure. Fool-proofing.
310. — — (American machinist, v. 35, Oct. 12, 1911, p. 686-688.) **VFA**
 Back pressure. Fish-back or fire-back. Oxygen supply. Installation of generating equipment. Underwriters' rules.
- 1912
311. Acetylene and acetylene welding. (English mechanic and world of science, London, v. 96, Sept. 20, 1912, p. 169-171.) **VA**
 Extracts from booklets issued by the Acetylene Publicity Co., London.
 Practical directions. Strength of welds. Speed of welding and consumption of gases. Welding cast and malleable iron, cast steel, copper, brass, other copper alloys, aluminum. Metal cutting.
312. Allen, Harry G. Pioneering in oxy-acetylene on the Pacific coast. illus. (Acetylene journal, Chicago, v. 14, Oct., 1912, p. 167-169.) **VOA**
 Paper read before the International Acetylene Association, Chicago, 1912.
313. Amédéo, Raoul. Acetylene as used in the autogenous welding of metals. (Acetylene journal, Chicago, v. 14, July, 1912, p. 18-20.) **VOA**
 Discussion of the chemical and physical phenomena incident to welding.
314. Anthony, C. C. Patching a water pipe by welding. (Engineering news, v. 68, Aug. 22, 1912, p. 356.) **VDA**
 36-inch riveted steel main repaired by use of portable oxy-acetylene plant at a cost of thirty-five dollars.
315. Astra, The, oxy-acetylene process. (Iron age, New York, v. 89, March 14, 1912, p. 659.) **VDA**
 Brief reference to lecture by E. Raven Rosenbaum. See also Metal worker, New York, v. 77, March 22, 1912, 407. *VIA*.
316. Autogene Schweißung eines Dampfmaschinen-Zylinders. illus. (Stahl und Eisen, Düsseldorf, v. 32, Dec. 12, 1912, p. 2093-2094.) **VIA**
 Abstracted in Zeitschrift des Vereins deutschen Ingenieure, Berlin, v. 56, p. 2122. *VDA*.
 Repair of high-pressure cylinder 900 mm. diameter.
317. Autogenous welding applied to fire-box construction. illus. (Boiler maker, v. 12, Dec., 1912, p. 347-348.) **VFA**
 Oxweld process.
318. Autogenous welding of brass and copper alloys. (Acetylene journal, Chicago, v. 13, June, 1912, p. 515-517.) **VOA**
 Brief account of experiments made by the Union de la soudure.
319. Autogenous welds for boiler work. illus. (The locomotive, Hartford, v. 29, Oct., 1912, p. 227-231.) **TPB**
 Experience not encouraging.
320. Autogenschweißung eines Zylinders. illus. (Zeitschrift für Dampfkessel und Maschinenbetrieb, Berlin, v. 35, Nov. 15, 1912, p. 490-491.) **VFA**
 Welding the combined cylinder and valve chest of a large tandem high-pressure engine. Abstract of the paper in Autogene Metallbearbeitung, 1912.

321. Automatic welding and cutting with oxy-acetylene. illus. (Acetylene journal, Chicago, v. 14, July, 1912, p. 18-19.) **VOA**
"Automatic guidance of the acetylene torch," the "oxygraph" of the Davis-Bourbonville Co.

VGA; Acetylene journal, Chicago, v. 14, Jan., 1913, p. 297-299, **VOA**.

An important paper, complementing his former paper on the welding of iron and of steel. Microscopic studies of welds. Tables showing results of hardness and shock tests.

322. Bauschlicher, August. Stand der autogenen Schneidtechnik. (Zeitschrift für praktische Metallbearbeitung, Jahrgang 1, Sept. 19, 1912, p. 109-111, and Oct. 17, 1912, p. 121-126, illus. [In, Der praktische Maschinen-Konstrukteur, Leipzig, v. 45, 1912,]) **VDA**

From the patent standpoint.

323. Bermann, Max. Die Theorie des Schweissens von Stahl und ihre praktische Anwendung. illus. (Zeitschrift des Vereines deutscher Ingenieure, Berlin, v. 56, March 30, 1912, p. 501-508.) **VDA**

Abstract (translated) in International Association for Testing Materials, 6th Congress, New York, 1912, paper no. viii-3, **VEE**.

Theory of steel welding with requirements for the autogenous process. Oxidation and reduction at the welding place. The choice and preparation of the binding material. Photographic reproductions of welds.

324. Besprechung des von der "Union de la Soudure Autogène" konstruierten Modells für eine Wasservorlage. (Carbid und Acetylen*, Berlin, v. 16, Feb. 1, 1912, p. 27-29, illus.) **VGA**

325. Brandt, H. Ein Wettbewerb für autogene Schweissung. illus. (Werkstatt Technik, Berlin, v. 6, May 1, 1912, p. 230-232; May 15, p. 264-265.) **VFA**

Conditions and results of a welding competition under the auspices of the Union de la soudure.

326. Burkhardt, L. H. Unusual examples of oxy-acetylene welding. illus. (American machinist, New York, v. 36, May 9, 1912, p. 766.) **VFA**

Pipe Ys welded smooth and tight without necessity of caulking.

327. — Welding a crankshaft. illus. (American machinist, v. 36, March 14, 1912, p. 414.) **VFA**

328. — Welding two crankshafts together. illus. (American machinist, New York, v. 36, Jan. 4, 1912, p. 29-30.) **VFA**

329. Carnevali, F. Autogenous welding by means of oxygen and acetylene of copper and its principal alloys, and of aluminum. illus. (Journal of the Institute of Metals, London, v. 8, 1912, part 2, p. 282-307.) **VIA**

With discussion, p. 308-311.

Abstracted in Automobile, New York, v. 27, 1912, p. 885, 906-907, 958-959, **† TOL**; Journal of the Society of Chemical Industry, London, v. 31, p. 990, **VOA**; Metallurgical and chemical engineering, New York, v. 10, Nov., 1912, p. 762, **VIA**; Carbid und Acetylen, Berlin, v. 17, April 15, 1913, p. 87-88,

— (Internal combustion engineering*, London, v. 2, Oct. 16, 1912, p. 352-357.) **TOL**

* Binder's title reads *Automobile engineer*.

330. Cause of hardness in cast iron which has been welded. (Acetylene journal, Chicago, v. 14, Nov., 1912, p. 211.) **VOA**

331. Cave, Henry. Autogenous welding for repairing boilers. illus. (The Locomotive, Hartford, v. 29, April, 1912, p. 42-45.) **TPB**

332. — Process of autogenous welding and cutting of metals. (Boiler maker, New York, v. 12, Feb., 1912, p. 50-52.) **VFA**

Paper read before the American Institute of Steam Boiler Inspectors. History and description of the process.

333. Cement in bank construction immune to oxy-acetylene. illus. (Acetylene journal, Chicago, v. 14, Oct., 1912, p. 164.) **VOA**

Note on the wall construction of proposed vault for U. S. Sub-Treasury, New York.

334. Cobleigh, H. R. Modern welding processes, with special reference to flame welding. illus. (Journal of the American Society of Mechanical Engineers, v. 34, Jan., 1912, p. 7-37.) **VFA**

Abstracted in Engineering magazine, New York, v. 43, May, 1912, p. 282-284, **VDA**.

335. Colvin, Fred H. Oxy-acetylene for cutting up the wreck of the Maine. illus. (Acetylene journal, Chicago, v. 13, Feb., 1912, p. 337.) **VOA**

336. Deutscher Acetylenverein. Autogene Schweissung mittels Acetylensauerstoff. (Zeitschrift für angewandte Chemie, Leipzig, v. 25, Nov. 1, 1912, part 2, p. 2268.) **PKA**

Brief reference to paper by Hermann Richter on experiments to prevent explosions by the use of a rock-filled container.

337. — Bericht über die Sitzung der Fachgruppe für autogene Metallbearbeitung in München am 17. Februar 1912. (Carbid und Acetylen*, Berlin, v. 16, 1912, p. 48-53, 61-68.) **VGA**

Address by Dr. Vogel on the state of the art; and discussion regarding oxy-benz process.

338. — Entwurf von Grundsätzen für Wasservorlagen zur autogenen Metallbearbeitung. (Carbid und Acetylen*, Berlin, v. 16, Jan. 1, 1912, p. 7-8.) **VGA**

Suggested requirements for water seals.

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

23

339. — Prüfungs und Untersuchungsstelle. Gutachten über den Wert der Benzol-Sauerstoff-Schweissung im Vergleich zur Acetylen-Sauerstoff-Schweissung. illus. (Carbid und Acetylen*, Berlin, v. 16, June 1, 1912, p. 121-155.) **VGA**

Results of this exhaustive investigation show that oxy-acetylene is preferable to oxy-benz process.

340. Die vom Deutschen Acetylenverein für die Zwecke der autogenen Metallbearbeitung vom 1. August 1911 bis 31. März 1912 geprüften und mit einem Typenzeugnis versehenen Wasservorlagen. illus. (Carbid und Acetylen*, Berlin, v. 15, May 15, 1912, p. 109-114.) **VGA**

Detailed drawings of water seals manufactured by various firms.

341. Effect on steel of cutting by oxy-acetylene. (American machinist, New York, v. 3, Feb. 8, 1912, p. 217.) **VFA**

Brief statement of results of tests on two mild steels, a nickel steel, and a chrome-nickel steel.

342. Einiges über Einrichtung autogener Azetylen-Sauerstoff-Schweissanlagen unter spezieller Berücksichtigung des Schweissapparates "Hesperus." (Zeitschrift für praktische Metallbearbeitung, Jahrgang 1, March 7, 1912, p. 33-35, illus. In Der praktische Maschinen-Konstrukteur, Leipzig, v. 45, 1912.) **VDA**

343. Fackler, C. J. Strength of oxy-acetylene welds. (Boiler maker, New York, v. 12, Oct., 1912, p. 296.) **VFA**

Abstract of paper read at the 20th annual convention of the International Railroad Master Blacksmiths Association, August, 1912.

344. Fraenkel, A. Temperatur und Beschaffenheit verschiedener Schweissflammen. Eine thermo-chemische Studie. (Carbid und Acetylen*, Berlin, v. 16, April 15, 1912, p. 85-90.) **VGA**

345. Gas mains, Oxy-acetylene welding of high-pressure. (Engineering record, New York, v. 66, Dec. 7, 1912, p. 631.) **VDA**

Account of work in laying 6-inch line in San Francisco.

345a. Groth, Lorentz Albert. Welding and cutting metals by aid of gases or electricity. New York: D. Van Nostrand Co., 1912. xvi, 281 p. 8°. **VID**

346. International Acetylene Association. — Oxy-acetylene Committee. Report. (In: Proceedings, fifteenth annual convention, Chicago, 1912, p. 28-38.) **VOK**

With discussion.
Interesting statement covering progress of the art during the year.

347. Kautny, Theodor. Handbuch der autogen Metallbearbeitung. Halle a.S.: C. Marhold, 1912. xiv, 712 p. illus. 2. ed. 8°. **VID**

348. Kirchberger, W. Oxy-acetylene in rescues from railroad wrecks. (Acetylene journal, Chicago, v. 14, July, 1912, p. 17-18.) **VOA**

Suggested use of oxy-acetylene cutting outfit for releasing persons caught in wreckage.

349. Knappich, Jakob. Zu den Patentstreitigkeiten betreffend das autogene Schneiden. (Carbid und Acetylen*, Berlin, v. 16, May 15, 1912, p. 117.) **VGA**

Considers the conflict of German patent no. 236,590 with nos. 137,588, 143,640 and 216,963. **VDA**

350. Lawrence, S. E. Thermit welding in Galveston district. illus. (United States Engineer Department, Professional memoirs, v. 4, July-August, 1912, p. 464-469.) **VDA**

Superiority of this over the oxy-acetylene process in welding 10-inch shaft of the sea-going dredge Galveston.

— — Same under the title: Emergency welding of broken parts of dredges. (Engineering news, New York, v. 68, Aug. 8, 1912, p. 242-243.) **VDA**

351. Le Chatelier, Henri Louis. Acetylene et gaz à l'eau. illus. (In his: Introduction à l'étude de la métallurgie, Paris, c. 1912, p. 247-279.) **VIB**

Contains a reference to oxy-acetylene blowpipe.

352. Lester, C. E. Oxy-acetylene welding and cutting in railroad work. illus. (Boiler maker, New York, v. 12, Aug., 1912, p. 229-232.) **VFA**

Welding of mud-ring of a consolidation engine in four hours and fifty-four minutes at cost of \$19.98. Fire-box patches. Repairing furnace door of a Harriman type consolidation locomotive. Details of costs covering a ninety day period in certain railroad shops.

353. Lewes, Vivian B. The uses of acetylene. (Times, London, Engineering supplement, July 3, 1912, p. 23.) **Newspaper Room**

Brief reference to welding.

354. Ludwig, Hans. Der Azetylen-Sauerstoff-Schweissbrenner; seine Wirkungsweise und seine Konstruktionsbedingungen. Berlin: J. Springer, 1912. 30 p. illus. f°. (Berlin. Technische Hochschule. Berichte des Versuchsfeldes für Werkzeugmaschinen. Heft 2.) **VEW**

Abstracted in Werkstatt Technik, Berlin, Aug. 1, 1912, p. 381-385. **VFA**; Dampfkessel und Maschinenbetrieb, Berlin, v. 35, Sept. 6, 1912, p. 383. **VFA**; Elektrotechnische Zeitschrift, Berlin, v. 34, July 31, 1913, p. 886. **VGA**.

Description of an experimental oxy-acetylene blowpipe and tests made to determine the effect of heating the burner, varying the mixture, pressure and velocity of the gases, &c.

355. M'Kelway, G. H. Use of the oxy-acetylene flame on track work in Brooklyn. illus. (Electric railway journal, New York, v. 39, May 11, 1912, p. 793.) **TPB**

356. Mechanical aids in the oxy-acetylene process. (Acetylene journal, Chicago, v. 13, Jan., 1912, p. 293.) **VOA**

Refers to cutting device of Pierre Eimann of Russia.

357. Murray, Kenneth Sutherland. Handbook on oxy-acetylene welding, with a chapter on metal cutting by oxygen. [London: Waterlow & Son, Ltd.,] 1912. 52 p. **VID**

Author is managing director of the British Oxygen Company, Ltd.

358. Neure Schweissmaschinen für zylindrische und dem ähnliche Gefäße. usw. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 1, May 2, 1912, p. 50. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 45, 1912.]) **VDA**

Describes apparatus made by Alexander Bastian in Hagen, Westphalia.

359. Nyquist, C. J. The strength of oxy-acetylene welding. (Acetylene journal, Chicago, v. 14, Aug., 1912, p. 69-70.) **VOA**

Experimental tests made by U. S. Steamboat Inspection Service.

360. Overcoming bubbles in cast iron work. (Acetylene journal, Chicago, v. 13, May, 1912, p. 474.) **VOA**

361. Oxy-acetylene for fire departments. (Acetylene journal, Chicago, v. 13, May, 1912, p. 474.) **VOA**

Suggested use in effecting entrance into the basements of buildings, stores, etc.

362. Oxy-acetylene for steel passenger coach construction. illus. (Acetylene journal, Chicago, v. 13, May, 1912, p. 471-472.) **VOA**

363. Oxy-acetylene metal cutting machine. illus. (American machinist, New York, v. 36, June 20, 1912, p. 1013-1014.) **VFA**

Oxygraph manufactured by the Davis-Bournonville Company.

364. Oxy-acetylene welding in a government arsenal. illus. (Acetylene journal, Chicago, v. 14, Dec., 1912, p. 255.) **VOA**

Ammunition boxes made water tight by welding in the Frankfort arsenal.

365. Oxy-benz v. oxy-acetylene welding. Report on the value of oxy-benzol (oxy-benz-apparatus) as compared with oxy-acetylene welding. London, 1912? 31 p. illus. 4°. **VID**

Tests, conducted in the laboratory of the German Acetylene Association, favor the oxy-acetylene process. Also certificate of test signed by J. H. Vogel of the Government Testing Department of the Technical High School, Berlin.

OXY-BENZ versus oxy-acetylene welding. (English mechanic and world of

science, London, v. 95, Nov. 22, 1912, p. 368-369.) **VA**

Abstract of a report published by the German Acetylene Association. Oxy-benzol stated to be inferior to oxy-acetylene for welding purposes.

366. [Oxygraph, The.] illus. (Metal worker, New York, v. 78, July 19, 1912, p. 97.) **VIA**

Cutting tracer on the pantograph principle. Cuts steel 3 inches in thickness or less at the rate of 6 inches per minute.

367. Pleiss, Paul. Welding associations abroad. (Acetylene journal, Chicago, v. 14, Sept., 1912, p. 112.) **VOA**

Brief note as to English and continental associations.

368. Plumley, M. S. Achievements with the oxy-acetylene process of welding and cutting metals. (Engineering news, New York, v. 68, Oct. 24, 1912, p. 773-776.) **VDA**

Abstract of paper read before the Association of Iron and Steel Electrical Engineers, Milwaukee, 1912.

Also abstracted, under the title Oxy-acetylene welding and cutting, in American machinist, New York, v. 37, Oct. 10, 1912, p. 619-620. **VFA**.

Application to welding and cutting steel plates and sheets, steel castings, gray iron castings, aluminum, brass and copper. Representative costs are given.

369. Preisausschreiben betreffs Prüfung autogener Schweissstellen. (Stahl und Eisen, Düsseldorf, v. 32, Dec. 5, 1912, p. 2052.) **VIA**

Prizes offered by the Carbidhandels Gesellschaft for best paper on effect of slag-enclosures, flaws, and overheating.

370. Prest-O-Welder, The. illus. (Iron age, New York, v. 89, April 25, 1912, p. 1042.) **VDA**

Apparatus of the Prest-O-Lite Company, Indianapolis, Ind.

371. Punde, F. "Verwendet flüssige Brennstoffe." (Zeitschrift für praktische Metallbearbeitung, Jahrg. 1, Sept. 19, 1912, p. 111-113. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 45, 1912.]) **VDA**

372. Reich, W. I. Oxy-acetylene welding. illus. (Metallurgical and chemical engineering, New York, v. 10, July, 1912, p. 441-442.) **VIA**

Description of new blowpipe designed by the author.

373. Richter, Hermann. Das Ausbrenner der Druckminderventile. illus. (Carbid und Acetylen*, Berlin, v. 16, Sept. 15, 1912, p. 206-211.) **VGA**

374. Safety, The, factor in welding. (Acetylene journal, Chicago, v. 13, June, 1912, p. 517.) **VOA**

375. Savings by oxy-acetylene welding. (Iron age, New York, v. 90, Dec. 19, 1912, p. 1439.) **VDA**

Economies effected in the shops of the Indianapolis Traction and Terminal Company. Detailed figures for one month are given.

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

25

376. **Schweissvorrichtung** für Stosskan-
ten an Rohren usw., die unter der von
einem Schweissbrenner erzeugten Flamme
vorbeigeführt werden. illus. (Zeitschrift
für praktische Metallbearbeitung, Jahrg.
1, June 27, 1912, p. 73-74. [In: Der prakti-
sche Maschinen-Konstrukteur, Leipzig,
v. 45.])

VDA

D. R. P. 233,978 to Ernest Brion.

377. **Schneidbrenner** zum Schneiden en-
ger Rohre (bes. Kesselrohe). illus. (Zeit-
schrift für praktische Metallbearbeitung,
Jahrg. 1, May 30, 1912, p. 72. [In: Der
praktische Maschinen-Konstrukteur, Leipzig,
v. 45.])

VDA

D. R. P. 230,778.

378. **Schneider**, Alfred. Die Grund-
sätze für Wasservorlagen im Lichte fran-
zösischer Kritik. (Carbid und Acetylen*,
Berlin, v. 16, April 15, 1912, p. 90-91.) VOA

379. — Zur Frage des Sauerstoffver-
brauchs der Schweissbrenner. (Carbid
und Acetylen*, Berlin, v. 16, Feb. 1, 1912,
p. 30-32.)

VOA

380. **Seliger**, P. Die autogene Schwei-
sung. Deren Erfolge und Misserfolge so-
wie eine Anregung zur Förderung für nur
zugelassene Firmen zu Dampfkesselrepa-
raturen. (Zeitschrift für Dampfkessel und
Maschinenbetrieb, Berlin, v. 35, Oct. 25,
1912, p. 460-461.)

VFA

Comparison of oxy-acetylene and electricity for
the welding of boiler plates.

381. **Setz**, H. R. An unusual shaft weld-
ing job. illus. (American machinist, New
York, v. 36, June 20, 1912, p. 995-996.) VFA

After all other expedients had been rejected a
large gas-engine crankshaft was built up and a
substantial saving in time and money effected.

382. **Silicon** as used in autogenous weld-
ing. (Acetylene journal, Chicago, v. 13,
June, 1912, p. 517.)

VOA

383. **Springer**, J. F. Does oxy-acetylene
cutting injure the metal? (Iron age, New
York, v. 90, July 18, 1912, p. 163.)

VDA

384. — Manufacture of tubing by au-
togenous welding. illus. (Machinery, New
York, Eng'ng ed., v. 18, Jan., 1912, p. 361-
362.)

VFA

Abstracted in Practical engineer, London, v. 45,
Jan. 26, 1912, p. 107-108. VDA.

Describes machines built by August Schmitz, Düs-
seldorf, Germany.

385. — Oxy-acetylene torch practice;
a book for the men who use the oxy-acety-
lene welding and cutting torches. New
York: Richardson Press 1912. 140 p., 7
pl. 12°.

VID

386. — Oxy-acetylene welding of tanks
and retorts. illus. (Machinery, New York,
Eng'ng ed., v. 18, Aug., 1912, p. 938-940.)

VFA

Also considers the welding of copper and of
aluminum.

387. **Stavenhagen**, A. Die Anfänge des
autogenen Schneidens. (Chemiker-Zeitung,
Cöthen, v. 36, March 7, 1912, p. 257-258.)

VOA

Discusses German patents 137,588 and 143,640.

— — Same. (Carbid und Acetyl-
len*, Berlin, v. 16, April 1, 1912, p. 73-75.)

VGA

388. **Steel** as affected by oxy-acetylene
cutting. (Acetylene journal, Chicago, v.
14, Aug., 1912, p. 69.)

VOA

Brief report of tests.

389. **Steelman**, James. Welding as a
caulking process. illus. (Cassier's maga-
zine, New York, v. 42, Aug., 1912, p. 134-
139.)

VDA

Account of work on Boulder pipe line.

390. **Syo**, E. de. Autogenes Schweißen.
illus. (Zeitschrift für praktische Metall-
bearbeitung, Jahrg. 1, 1912, p. 6-9, 15-17,
30-32. [In: Der praktische Maschinen-Kon-
strukteur, Leipzig, v. 45.])

VDA

Descriptions and drawings of apparatus of differ-
ent firms.

391. — Azetylen in seiner Anwendung
als brennbares Gas bei den autogenen
Schweiss- und Schneide-Verfahren. (Zeit-
schrift für praktische Metallbearbeitung,
Jahrg. 1, August 22, 1912, p. 103-105. [In:
Der praktische Maschinen-Konstrukteur,
Leipzig, v. 45, 1912.])

VDA

392. — Die neueren Arbeitsverfahren
zur Bearbeitung von Metallen mittels der
Wärme und Elektrizität. illus. (Zeit-
schrift für praktische Metallbearbeitung,
Jahrg. 1, 1912, p. 116-117, 126-128, 135-138,
145-149; Jahrg. 2, Jan. 9, 1913, p. 1-4. [In:
Der praktische Maschinen-Konstrukteur,
Industrie Aufgabe, Leipzig, v. 45-46.])

VDA

Discussion of gas and electric processes. Com-
parative efficiencies of oxy-acetylene and oxy-hydro-
gen.

393. — Schmiede-Schweißen und au-
togenes Schweißen. illus. (Zeitschrift
für praktische Metallbearbeitung, Jahrg. 1,
1912, p. 87-91, 98-103. [In: Der praktische
Maschinen-Konstrukteur, Leipzig, v. 45.])

VDA

Illustrations of various welds. Table showing
melting points and linear expansion of metals.

394. Test on a steel cylinder with the oxy-
acetylene torch. illus. (Acetylene journal,
Chicago, v. 13, June, 1912, p. 515.)

VOA

Account of work at plant of Gebrüder Sulzer in
Winterthur, Germany.

395. Tucker, Alexander E. The joining of metals. (*Journal of the Institute of Metals*, London, v. 8, 1912, part 2, p. 258-281; discussion, p. 308-311.) **VIA**

Abstracted in *Internal combustion engineering*, London, v. 2, Oct. 30, 1912, p. 385-388.

A general article on welding and brazing. Oxy-acetylene process discussed on p. 273-275.

— (Automobile, New York, v. 27, Oct. 17, 1912, p. 778-781.) **TOL**

396. Use, The, of blaugas as a substitute for oxy-acetylene process. illus. (*Iron age*, New York, v. 90, Sept. 5, 1912, p. 514-517.) **VDA**

Invention of Hermann Blau, of Augsburg, Germany. Several advantages claimed for the process.

397. Warfel, J. A. Oxy-acetylene welding and cutting. illus. (*Proceedings, Railway Club of Pittsburgh*, Pittsburgh, v. 11, Jan. 26, 1912, p. 72-89.) **TPB**

With discussion.
Practical suggestions. Illustrations show some typical repairs.

398. Welded steel replacing riveted work. illus. (*Acetylene journal*, Chicago, v. 13, April, 1912, p. 427-428.) **VOA**

399. Welding malleable castings. (*Acetylene journal*, v. 13, May, 1912, p. 474.) **VOA**

400. Welding, The, together of long sections of sheet iron. (*Acetylene journal*, Chicago, v. 13, April, 1912, p. 429.) **VOA**

401. White, Homer J. Oxy-acetylene welding a pinion shaft. illus. (*American machinist*, New York, v. 36, April 4, 1912, p. 556.) **VFA**

402. Zur Konzessionsfreiheit der sogenannten 2 kg-Apparate. (*Carbid und Acetylen**, Berlin, v. 16, Dec. 15, 1912, p. 277-279.) **VGA**

1913

403. Aluminum and aluminum welding. (*Acetylene journal*, Chicago, v. 15, July, 1913, p. 17-18.) **VOA**

Practical notes on welding with oxy-acetylene torch.

404. American Railway Master Mechanics Association. Electric and oxy-acetylene welding. illus. (*Railway age gazette*, New York, v. 54, June 13, 1913, p. 1351-1353.) **TPB**

Report of Committee on Design, Construction and Inspection of Boilers. Comparative advantages of the two processes for several kinds of work.

405. Autogene, Die, Schweissung in Deutschland im Lichte französischer Kritik. (*Carbid und Acetylen**, Berlin, v. 17, Sept. 1, 1913, p. 187-190.) **VGA**

406. Autogenous boiler welding. (Power, New York, v. 38, Aug. 26, 1913, p. 314.) **VFA**

Refers to work of Theodor Kautny, especially to his ingenious kinematograph method of demonstrating the effects of temperature and stress.

407. Autogenously welded flywheel. illus. (Power, New York, v. 38, Nov. 25, 1913, p. 745.) **VFA**

Welded in four places by The Welding Company.

408. Bagley, J. N. On oxy-acetylene welding practice: using the machine. illus. (*Acetylene journal*, Chicago, v. 15, Aug., 1913, p. 62-63.) **VOA**

Abstracted from Automobile dealer and repairer, TOL.

409. Bentley, F. W. Use of oxy-acetylene to repair large steel water mains. illus. (*Municipal journal*, New York, v. 33, Sept. 19, 1912, p. 395-396.) **SER**

Abstracted in *Acetylene journal*, Chicago, v. 14, Jan., 1913, p. 299, VOA.

410. Beseitigung von Kesselstein mittels der Acetylen-Sauerstoff-Flamme. (*Carbid und Acetylen**, Berlin, v. 17, Dec. 1, 1913, p. 267.) **VGA**

411. Brenner zum Schweißen und Schneiden von Metallen. illus. (*Zeitschrift für praktische Metallbearbeitung*, Jahrg. 2, April 3, 1913, p. 42. In: *Der praktische Maschinen-Konstrukteur*, Leipzig, v. 46, 1913.) **VDA**

412. Cave, Henry. Oxy-acetylene boiler welding. (Power, New York, v. 38, Dec. 30, 1913, p. 940-942.) **VFA**

"Three-license system" proposed.

413. Chemistry of the oxy-acetylene flame. (*Acetylene journal*, Chicago, v. 15, Nov., 1913, p. 191.) **VOA**

414. Compact, A, autogenous welding outfit. illus. (*Iron age*, New York, v. 91, June 12, 1913, p. 1424.) **VDA**

Apparatus of George C. Schemmel Wapakoneta, Ohio.

415. Culin, G. A. A. Anwendung der verschiedenen Schweißverfahren bei Strassenbahnen. illus. (*Zeitschrift für Kleinbahnen*, Berlin, v. 20, 1913, p. 1037-1060, 1217-1231.) **TPB**

Experiences in German cities with the different methods. Considerable reference to oxy-acetylene.

416. Cutting concrete by oxy-acetylene torch. (*Metal worker*, New York, v. 79, March 28, 1913, p. 455.) **VIA**

Acetylene and oxygen pressures were increased to 20 and 50 pounds per square inch respectively.

417. Deutscher Acetylen-Verein. Bericht über die Sitzung der Fachgruppe für autogene Metallbearbeitung in München am 1. Feb. 1913. (*Carbid und Acetylen**, Berlin, v. 17, March 1, 1913, p. 45-55.) **VGA**

LIST OF WORKS RELATING TO OXY-ACETYLENE WELDING

27

- 418.** Eigenartiger, Ein, Azetylengaserzeuger. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, Aug. 21, 1913, p. 115. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
- 419.** Einiges über die verschiedenen Systeme und Konstruktionen der Azetylen-Entwickelungsanlagen. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, Aug. 21, 1913, p. 113-115; Oct. 16, 1913, p. 137-140; Nov. 13, 1913, p. 152-153; Dec. 11, 1913, p. 163-165. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
- A comprehensive article with descriptions and illustrations of the various types.
- 420.** Fairlie, The, portable oxy-acetylene welding plant. (Iron and coal trades review, London, v. 86, March 21, 1913, p. 448.) **VIA**
- Apparatus designed to give proper regulation of gas supply.
- 421.** Faron, Leon. Procédés divers de fabrication des triangles de frein pour matériel de chemins de fer. Possibilité de l'emploi de la soudure oxy-acétylénique. illus. (Bulletin technologique de la Société des anciens élèves, Dec., 1913, p. 1007-1063.) **VA**
- Blow pipe applied to drilling holes in steel rails.
- 422.** Fuehrungsvorrichtung für Schneidbrenner zum autogenen Schneiden von Löchern. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, Oct. 16, 1913, p. 142. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
- 423.** Geblaesebrenner für autogene Schweissung. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, April 3, 1913, p. 41-42. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
- For the expert as well as for those who wish to acquire a simple and reliable technique. Intricate scientific considerations omitted.
- 424.** Granjon, R., and P. ROSENBERG. A practical manual of autogenous welding (oxy-acetylene); with a chapter on the cutting of metals with the blowpipe. Translated by D. Richardson. London: C. Griffin and Co., Ltd., 1913. xxii, 234 p. illus. 8°. (Griffin's technological hand-books.) **VID**
- 425.** Harris, J. Oxy-acetylene process and apparatus. (Acetylene journal, Chicago, v. 14, May, 1913, p. 493-495.) **VOA**
- Recent improvements in methods, blow pipes, generators, etc.
- 426.** Hobart, James F. A day with the welder. (Acetylene journal, Chicago, v. 15, July, 1913, p. 19, 38-39, 42.) **VOA**
- A day's routine in a small repair shop. Abstracted from Automobile dealer and repairer, **TOL**.
- 427.** — Welding a broken crank shaft. illus. (Automobile dealer and repairer, New York, v. 15, April 1, 1913, p. 39-40.) **TOL**
- Abstracted in Acetylene journal, Chicago, v. 15, Oct., 1913, p. 152, *VDA*.
- 428.** Indianapolis Traction and Terminal Company's experience with oxy-acetylene welding. illus. (Electric railway journal, New York, v. 41, Jan. 4, 1913, p. 38-39.) **TPB**
- Early experiences. Savings effected.
- 429.** Jacobs, Henry W. Oxy-acetylene welding and cutting. illus. (Railway age gazette, New York, v. 54, March 4, 1913, p. 475-478.) **TPB**
- With editorial comment on p. 470-471. Reference to the welding schools in Germany. Observations on the development of the art in European commercial and railway repair establishments.
- 430.** Johnston, E. What causes the blow-pipe to backfire? (American machinist, New York, v. 38, Jan. 16, 1913, p. 114.) **VFA**
- Query with editorial suggestion regarding relief.
- 431.** Jones, L. B. Autogenous welding and a high pressure gas problem. illus. (Acetylene journal, Chicago, v. 14, Feb., 1913, p. 342-343.) **VOA**
- Description and cost of welding high pressure steel gas pipe. Abstracted from Pacific gas and electric magazine.
- 432.** Keppelmann, D. E. The automobile in modern gas distribution. illus. (Gas age, New York, v. 32, Nov. 15, 1913, p. 467-472.) **VOA**
- Account of oxy-acetylene automobile service of the Pacific Gas and Electric Co.
- 433.** Klindworth, J. L. Welding an armature shaft. (Power, New York, v. 38, Aug. 19, 1913, p. 264-265.) **VFA**
- Armature was for 50 H. P. motor running at 1000 rev. per minute.
- 434.** Mit den Explosionen von Sauerstoffflaschen. (Carbid und Acetylen*, Berlin, v. 17, April 15, 1913, p. 85-86.) **VGA**
- Account from Revue de la soudure autogène of accident in Lille.
- 435.** Morehead, J. M. Acetylene superior to blaegas for lewding purposes. (Acetylene journal, Chicago, v. 15, Sept., 1913, p. 124-125.) **VOA**
- Theoretical comparison of heat units developed.
- 436.** Oxweld, The, cutting and welding process. illus. (Railway and engineering review, Chicago, v. 53, June 14, 1913, p. 570-571.) **TPB**
- Table showing comparative costs by oxy-acetylene and other methods.
- 437.** Oxy-acetylene cutting torches. (Engineering news, New York, v. 69, June 26, 1913, p. 1331.) **VDA**
- Costs of cutting furnished by the Oxweld Acetylene Company.

438. Oxy-acetylene in bridge wreckage removal. illus. (Iron age, New York, v. 91, May 22, 1913, p. 1230.) **VDA**

Brief account of work in Indianapolis by the Prest-O-Lite Company.

439. Oxy-acetylene torch for wrecking a concrete building. illus. (Engineering record, v. 67, Feb. 15, 1913, p. 176.) **VDA**

Abstracted in Acetylene journal, Chicago, v. 14, June, 1913, p. 515. **VOA**.

Found effective in cutting concrete.

440. Oxy-acetylene welding and cutting operations. illus. (Engineering news, New York, v. 69, May 22, 1913, p. 1062-1063.) **VDA**

Lamp posts in Dayton, Ohio, were broken off during the flood and later repaired by the Dayton Welding Company. Also an account of wrecking two Indianapolis bridges with Presto-O-Lite torches.

441. Oxy-acetylene welding of copper. (Practical engineer, London, v. 48, July 24, 1913, p. 75.) **VDA**

Paragraph referring to process of Carl Canzler.

442. Oxygen generators. (Railway age gazette, New York, v. 54, June 14, 1913, p. 1400.) **TPB**

Brief reference to apparatus of the International Oxygen Company.

443. Pleiss, Paul. The causes of blowpipe backfiring. (American machinist, New York, v. 38, March 6, 1913, p. 411.) **VFA**

Abstracted in Acetylene journal, Chicago, v. 14, May, 1913, p. 476-477. **VOA**.

Answers the complaint of E. Johnson in American machinist, v. 38, p. 114.

444. Preheating as a protective measure. (Acetylene journal, Chicago, v. 14, June, 1913, p. 514-515.) **VOA**

445. Prussia. — Minister für Handel und Gewerbe. Acetylenerverordnung, 1913. (Carbid und Acetylen *, Berlin, v. 17, May 1, 1913, p. 93-112.) **VGA**

Complete text of the regulations.

446. Rasch, H. Die Sicherheitsmassnahmen gegen Explosionsgefahren beim Schweiss- und Schneidbrenner mit Acetylen. illus. (Carbid und Acetylen *, Berlin, v. 17, Nov. 15, 1913, p. 249-260.) **VGA**

Also contains the reply of the Deutscher Acetylen Verein.

447. Razing a bridge with the oxy-acetylene torch. illus. (Iron age, New York, v. 91, Jan. 30, 1913, p. 307.) **VDA**

Account of work on Gay Street bridge, Baltimore, Md.

448. Regulation of the oxy-acetylene flame. (Acetylene journal, v. 14, March, 1913, p. 386-387.) **VOA**

Brief directions for both medium and low pressure systems.

449. Removing ruins with the oxy-acetylene torch. illus. (Iron age, New York, v. 91, March 6, 1913, p. 587.) **VDA**

Work on Carnegie Steel Company's building, Baltimore, Md., accomplished in ninety hours.

450. Richter, Hermann. Der Hamburger Kiestopf. illus. (Carbid und Acetylen, Berlin, v. 17, Jan. 15, 1913, p. 34-38.) **VGA**

Use of a gravel-filled box placed between generators and burner, for purpose of preventing flare-back.

451. Schneider, Alfred. Die Bedeutung des gelösten Acetylens für die Acetylen- und Carbidindustrie. (Carbid und Acetylen, Berlin, v. 17, Aug. 1, 1913, p. 165-175.) **VGA**

Reference made to welding on p. 173-174.

452. Schweissapparat, Der, als Einbruchswerkzeug. (Carbid und Acetylen, Berlin, v. 17, April 15, 1913, p. 90.) **VGA**

Interesting account of burglary at the factory of Ratzinger and Weidenkaff in Munich.

453. Soudure, La, autogène. illus. (L'industrie des tramways et chemins de fer, Paris, v. 7, Nov., 1913, p. 545-546.) **TPB**

Refers to French patents 430,259 and 15,967 for acetylene generator.

454. Springer, J. F. Miscellaneous steel cutting by gas in the navy. (Iron age, New York, v. 91, May 8, 1913, p. 1149.) **VDA**

Also in Acetylene journal, Chicago, v. 15, Dec., 1913, p. 232-233. **VOA**.

455. — Oxy-acetylene welding in sheet metal work. illus. (Metal worker, New York, v. 79, April 25, 1913, p. 578; May 9, p. 638, 647; June 13, p. 819-820; July 11, p. 41; Aug. 8, p. 167; Sept. 12, p. 301.) **VIA**

Flat and angle joints. Preparation of edges. Restoration of welded sheet steel articles. Welding of aluminum and copper. Mechanical welding. Tube welding. Cutting of sheet steel.

456. Syo, E. de. Autogene Schweißung von Aluminium. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, May 2, 1913, p. 53-56. In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.) **VDA**

The special treatment necessary for welding aluminum successfully.

457. — Autogenes Schweißen von Blei, Nickel und Zink. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, Sept. 18, 1913, p. 129-130. In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.) **VDA**

458. — Autogene Schweißung der Kupfer-Legierungen. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, Aug. 21, 1913, p. 115-117. In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.) **VDA**

459. — Autogenes Schweißen von Kupfer mittels des Sauerstoff-Azetylen-Schweissverfahrens. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, July 24, 1913, p. 103-105. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
460. — Praktische Ausführung von Schweisungen und Ausbesserungsarbeiten bei den verschiedenen neuen Schweissverfahren für die einzelnen in Verwendung kommenden Metalle. illus. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, March 6, 1913, p. 28-30; April 3, 1913, p. 37-40. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
461. — Vergleich der verschiedenen neueren Schweissverfahren. (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, Feb. 6, 1913, p. 14-15. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
Comparison of different gases for welding purposes, with cost data.
462. Tests for welded joints. (Power, New York, v. 38, Dec. 30, 1913, p. 944.) **VFA**
Refers to results of competition for prize offered by the Zentralbüro für Acetylen und autogene Metallbearbeitung in Nürnberg.
463. Thoma, Leo. Die Herstellung des Autogenrohres. illus. (Carbid und Acetylen, Berlin, v. 17, Jan. 1, 1913, p. 2-12.) **VGA**
An excellent paper describing the application of autogenous welding to pipemaking.
464. Ueber die Ausbreitung der autogenen Schweißung in England. (Carbid und Acetylen, Berlin, v. 17, April 15, 1913, p. 86-87.) **VGA**
Information concerning different firms and associations in England, with account of welding school at the Polytechnic Institute.
465. Ueber die Beeinflussung des Stahls durch das Acetylen-Sauerstoff-Schniederverfahren. (Carbid und Acetylen, Berlin, v. 17, Jan. 15, 1913, p. 15-16.) **VGA**
Abstracted from Acetylene lighting and welding journal.
466. Unter welchen Druckverhältnissen arbeiten Schweissbrenner? (Carbid und Acetylen, Berlin, v. 17, Jan. 15, 1913, p. 14.) **VGA**
467. Welche Gesichtspunkte kommen bei Beschaffung einer Azetylen-Anlage in Frage? (Zeitschrift für praktische Metallbearbeitung, Jahrg. 2, May 29, 1913, p. 67-68. [In: Der praktische Maschinen-Konstrukteur, Leipzig, v. 46, 1913.]) **VDA**
468. Welded joints. (Power, New York, v. 38, Dec. 30, 1913, p. 928.) **VFA**
Editorial comment on competition held in Germany.
469. Welding broken iron light poles. illus. (Iron age, New York, v. 91, May 8, 1913, p. 1115.) **VDA**
Brief account of work in Dayton, Ohio.
- 1914
470. Autogenous welding. illus. (In: Machinery's handbook for machine shop and drafting-room. New York, 1914. 12°. p. 1194-1201.) **Desk-Tech. Div.**
Tables of costs, gas consumption and capacity. Practical directions for welding various metals.
471. Autogenous welding in a pipe shop. illus. (American machinist, New York, v. 40, Feb. 5, 1914, p. 231-232.) **VFA**
472. Desch, Cecil B. Welding and autogenous soldering. (Practical engineer, London, v. 49, Feb. 5, 1914, p. 123.) **VDA**
Summary of remarks before the Scottish Engineers and Shipbuilders.
473. Gillespie, Robert M. Cutting large telephone cable pipes with wires enclosed. illus. (Acetylene journal, Chicago, v. 15, April, 1914, p. 392.) **VOA**
3" iron pipe cut without injuring the telephone cable enclosed in it.
- 473a. Hart, Richard N. Welding; theory, practice, apparatus, and tests. Electric, thermit and hot-flame processes. New York: McGraw-Hill Book Co., Inc., 1914. xiv, 210 p. illus. 2. ed. 8°. **VID**
474. Heaton, T. T. Some modern methods of welding. (Engineering, London, v. 97, Feb. 27, 1914, p. 300-303.) **VDA**
Abstracted in Practical engineer, London, v. 49, March 5, 1914, p. 221-224, *VDA*; Iron age, New York, v. 93, March 12, 1914, p. 676-677, *VDA*; Electrical engineering, London, v. 10, Feb. 26, 1914, p. 114-115, *VGA*.
Paper read before the Institution of Mechanical Engineers.
475. Kautny, Theodor. The use of autogenous welding in railway repair shops. illus. (Bulletin of the International Railway Congress Association, English edition, v. 28, Jan., 1914, p. 3-19.) **TPB**
Paper read before the German Society of Mechanical Engineers, Feb. 1913.
476. Keppelmann, D. E. Modern gas distribution; oxy-acetylene welding a factor. illus. (Acetylene journal, Chicago, v. 15, Feb., 1914, p. 307-308.) **VOA**
Superiority of the welded joints.
477. Mawson, Robert. Repairs made by oxy-acetylene welding. illus. (American machinist, New York, v. 40, Jan. 8, 1914, p. 55-57.) **VFA**
Repair of transmission case and of a church-bell. Cutting and welding a steel plate hood.
478. — Using the oxy-acetylene torch in the boiler shop. illus. (American machinist, New York, v. 40, April 16, 1914, p. 679-681.) **VFA**
Claims a lower cost and neater appearance than with the riveted method. Costs for cutting and welding, with lengths of seams welded.

478a. — Using oxy-acetylene methods for sheet plate work. illus. (American machinist, New York, v. 40, April 30, 1914, p. 757-759.) **VFA**

Describes the manufacture of steel mangle rollers, steam headers, and coil pipes.

479. Oxy-acetylene welding failure. (Practical engineer, London, v. 49, Jan. 8, 1914, p. 26.) **VDA**

Refers to boiler explosion due to insecure weld. Claims that best results are obtained only by fire and pressure.

480. Oxy-acetylene welding practice. (Practical engineer, London, v. 49, Jan. 22, 1914, p. 75.) **VDA**

Editorial comment on reply of Mr. Robert Young to leading article in issue of Jan. 8.

481. Oxy-acetylene welding rods. (Practical engineer, London, v. 49, April 2, 1914, p. 325.) **VDA**

Use of vanadium steel wire for the purpose.

482. Perkins, Frank C. Obtention de températures plus élevées que celles de l'arc électrique. illus. (L'électricien, Paris, v. 47, Feb. 21, 1914, p. 117-121.) **VGA**

High temperatures from combination electric arc and gas.

483. Richardson, D. Defective oxy-acetylene welds. illus. (Practical engineer, London, v. 49, Feb. 26, 1914, p. 196-197.) **VDA**

484. Richter, H. Advances in copper welding. illus. (Engineering news, New York, v. 40, Jan. 1, 1914, p. 23-25.) **VDA**

Refers to filling material and welding paste made by Carl Canzler, Duren, Germany.

485. Surface hardening by oxy-acetylene; a new application. (Acetylene journal, Chicago, v. 15, April, 1914, p. 394.) **VOA**

Abstracted from Acetylene welding and lighting journal.

486. Using gas torch on a wreck; reclaiming the twisted and crumpled remains of a steamship explosion. illus. (Iron age, New York, v. 93, March 12, 1914, p. 664.) **VDA**

Account of work on the steamship Alum Chine. See also Engineering record, v. 69, March 21, 1914, p. 343.

487. Whitford, J. F. Repairs to boilers by oxy-acetylene welding. (American machinist, New York, v. 40, 1914, p. 329-331, 369-371.) **VFA**

Objections to the method. Necessity for investigation of strains. Directions for welding. German method of repairing fire-boxes.

INDEX

Numbers refer to individual entries. Author references are printed in *italics*.

- Accidents, 107, 214, 221, 260, 434. See also Safety.
- Acetylene—
Combustion of, 2, 3, 16.
Dissolved, 11.
For the laboratory, 28.
General uses of, 9, 237, 305.
- Acetylene Illuminating Co., London, 35.
- Aiken, Claude, 108.
- Allen, Harry C., 312.
- Aluminum welding, 50, 51, 56, 118, 138, 157, 161, 179, 228, 240, 311, 385, 386, 403, 455, 456.
- Amédéo, Raoul, 176, 240, 313.
- American Railway Master Mechanics Association, 404.
- Andrew, G. W. See Bone, W. A., and G. W. Andrew.
- Anthony, C. C., 314.
- Arnoux, R., 14.
- Associations, welding, 185, 367.
- "Astra" process, 315.
- Auel, C. B., 110.
- "Autogen" Werke für autogene Schweiss-Methoden, 243.
- Autogenous Welding Equipment Company, 128, 196, 307.
- Automatic apparatus, 268, 321.
- Automatic repairs, 64, 71, 112, 116, 119, 146, 215, 291, 427, 477.
- Automobile service, oxy-acetylene, 432.
- Bach, C. von, 113.
- Bach, C. von, and R. Baumann, 178.
- Backfire. See Flash-back.
- Baendel, Hugo, 179.
- Bagley, J. N., 408.
- Bastian apparatus, 358.
- Baumann, R., 180.
- Baumann, R. See also Bach, C. von, and R. Baumann.
- Bauschlicher, August, 58, 181, 322.
- Bayer Revisions-Verein, 59.
- Becker, 111, 242.
- Beltzer, A., 25, 114.
- Belzer-Delcamp apparatus, 93, 114, 156.
- Bennett, Charles F., 60.
- Bentley, F. W., 409.
- Bentley, H. T., 244.
- Bermann, Max, 323.
- Bernier, L. L., 61, 62.
- Binet, André, 8.
- "Blaugas" process, 396, 435.
- Blow-pipe. See Burner.
- Boiler repairs, 47, 60, 61, 75, 76, 91, 105, 109, 111, 123, 129, 131, 137, 149, 150, 159, 160, 195, 198, 212, 216, 219, 225, 248, 251, 282, 286, 303, 319, 331, 352, 380, 404, 406, 412, 475, 478, 479, 487. See also Locomotive and machinery repairs.
- Boiler-scale, removing, 410.
- Bone, W. A., and G. W. Andrew, 16.
- Bone, W. A., and J. C. Cain, 4.
- Books, 25a, 69, 125, 178, 217, 234, 261, 300a, 305, 345a, 347, 357, 385, 424, 473a.
- Booth, W. H., 36.
- Bourbonville, Eugene, 63.
- Brandt, H., 325.
- Brass welding. See Copper welding.
- British Oxygen Company, 175, 252, 270.
- Bubbles, overcoming, in cast iron work, 360.
- Bureau Veritas, 17.
- Burglary, used for, 48, 452.
- Burkhart, L. H., 326, 327, 328.
- Burners, 10, 17, 41, 52, 54, 63, 68, 73, 87, 94, 146, 152, 157, 162, 203, 207, 224, 225, 226, 227, 242, 270, 351, 354, 372, 377, 411, 423, 425.
- Burr, S. D. V., 26.
- Butterfield, W. J. A. See Leeds, F. H., and W. J. A. Butterfield.
- Cain, J. C. See Bone, W. A., and J. C. Cain.
- Canzler copper welding process, 441.
- Carbidhandels Gesellschaft, 369.
- Carnevali, F., 245, 329.
- Carton, Chester, 246.
- Cave, Henry, 64, 116, 117, 118, 119, 120, 121, 122, 123, 124, 184, 247, 331, 332, 412.
- Chatelain, E., 125.
- Chemische Fabrik Griesheim-Elektron, 197.
- Chemistry of oxy-acetylene flame, 176, 313, 344, 413.
- Clark, R. W., 248.
- Clark, R. W. See also Reyer, William C., and R. W. Clark.
- Cobleigh, H. R., 126, 334.

- Colvin, Fred H.*, 335.
 Combination of electric arc and gas flame, 482.
 Compact welding plant, 249, 414.
Compagnie Française de l'Acétylène, 11.
 Comparison of different processes, 46, 54, 62, 63, 74, 95, 99, 104, 127, 132, 137, 148, 172, 223, 245, 250, 267, 339, 350, 365, 380, 392, 396, 415, 435, 460, 461.
 Competitions, Welding, 325, 462, 468.
 Concrete cutting, 333, 416, 439.
Copony, A., 250.
 Copper welding, 179, 183, 311, 318, 329, 385, 386, 441, 455, 458, 459, 484.
 Cost data, 15, 27, 28, 30, 40, 43, 49, 54, 58, 61, 71, 89, 93, 95, 99, 114, 129, 137, 199, 201, 202, 288, 293, 299, 375, 436, 437, 461, 470, 478.
Courtney, M. S., 130.
Courtney, W. F., 251.
Crombie, James, 131.
Culin, G. A. A., 415.
Cutler, F. C., 18.
 Cutting, 41, 52, 53, 65, 80, 114, 126, 151, 169, 186, 187, 196, 199, 211, 276, 294, 295, 299, 303, 311, 322, 332, 333, 341, 349, 356, 357, 368, 387, 452, 454, 473. See also Concrete cutting; Wrecking.
 Cutting, injurious to metal, 383, 385, 388.
 "Cyclone" process. See Matthews and Yates.
Davis, Augustine, 40, 67, 133, 188.
 Davis-Bourbonville Acetylene Development Company, 53, 88, 89, 90, 94, 169, 226, 239, 253, 278, 292, 297, 298, 299, 321, 363.
Davis, J. M., 189.
 Defective welds. See Failure of welds.
Delcampe, C., 68.
Desch, Cecil B., 472.
Deutscher Acetylengenverein, 134, 135, 136, 182, 190, 243, 254, 255, 256, 336, 337, 338, 339, 340, 417.
 Deutscher Oxyhydric Co., 302.
Deverell, E. C., 191.
Diegel, C., 69, 192, 193, 257.
 Dissolved acetylene, 11.
Dixie, E. A., 137.
Dixon, Harold B., 1.
 Drilling, 140, 422.
Dumesnil, P., 19.
 Economy Welding Machine Company, 258, 274.
 Effect of flame on welded material, 203, 330, 405.
 Emann cutting device, 356.
 Electric welding, comparison with oxy-acetylene, 46.
Elliott, Louis, 259.
 English welding firms, 464.
Epurite, 26, 32.
 Explosibility of gases, 1, 4.
 Explosions. See Accidents.
Fackler, C. J., 343.
 Failure of weld, 479, 483.
 Fairlie portable outfit, 420.
Faron, Leon, 421.
 Flare-back. See Flash-back.
 Flash-back, Prevention of, 233, 236, 310, 430, 443, 450. See also, Water seals.
 Flue welding, 129, 150. See also, Boiler repairs.
Foljambe, E. S., 71.
Fouché, Ed., 9, 10, 20, 21.
 Fouché patents, 164, 173, 306.
Fowler, William, 139.
Fraenkel, A., 344.
 France, History of autogenous welding in, 194.
Francis, S. A., 72.
Fraubel, S., 22.
Friedmann, Immanuel, 198.
Ganthier, E., and *Rodrigues-Ely, C.*
 Gas Consumption, 470.
 Gas pressure, 120, 184, 309, 416, 448, 466.
 Gas purification, 102, 203, 206, 223, 304. See also, Comparison of processes.
 Gas pipe welding, see Pipe welding.
 Gaudet und Bigand process, 302.
 Generators, 24, 25, 87, 242, 277, 308, 309, 418, 425, 442, 453.
Gillespie, Robert M., 473.
Granjon, R., and *P. Rosenberg*, 424.
Groth, Lorenz Albert, 345a.
Hammond, A. Newton, 140.
 Hanseatic Acetylengen-Gas-Industrie, 286.
 Hardening of welded material, 203, 330, 465.
 Hardening, Surface, 485.
 Harris Calorific Co., Cleveland, 24.
Harris, John, 73, 425.
Hart, Richard N., 473a.
Hartline, George, 199.
Heaton, T. T., 474.
Heraeus, W. C., 42.
Herzfeld, Hans, 200.
 "Hesperus" welding apparatus, 342.
Hilpert, A., 74, 75, 76, 141.
Hobart, James F., 426, 427.
Hopfer, 201.
Horn, August, 261.
 Impurities, Gas. See Purification of gas.
 Industrial Oxygen Co. process, 86, 92.
International Acetylengen Association, 263, 346.
 International Oxygen Company, 277, 442.

- Jacobs, H. W.*, 202, 264, 429.
Jaejer, 142.
Janet, A., 11.
 Joints, Tests on. See Tests on welds.
Johnston, E., 430.
Jones, L. B., 431.
Kautny, Theodor, 265, 347, 475.
 Kautny's kineomatagraph method, 406.
Keller und Knappich process, 302.
Keppelmann, D. E., 432, 476.
Kirchberger, W., 348.
Knildworth, J. L., 433.
Knappich, Jac., 43, 78, 143, 144, 145, 349.
 Knappich patent, 235.
Köln-Müsener patent, 66.
Lake, E. F., 80, 81, 82, 146, 147, 203.
Lamberton, E., 148.
Lauer, W. T., 204.
Lavinder, P. T., 205, 266.
Lavoisite, 269.
Law, E. F., 267.
Lawrence, S. E., 350.
 Lead welding, 179, 457.
Le Chatelier, Henri L., 2, 3, 149, 351.
Leeds, F. H., and *W. J. A. Butterfield*, 206.
Leroyer, L., 12.
Lester, C. E., 150, 352.
Levy, Anton, 151.
Lewes, Vivian B., 353.
Lightfoot, Cecil, 44, 83.
Linde Air Products Company, 44, 83, 282.
 Liquid gas, 5.
 Locomotive and machinery repairs, 264, 280, 283, 316, 317, 320, 327, 328, 381, 401, 407, 433, 469, 475. See also Boiler repairs.
Ludwig, Hans, 354.
McDonald, A. J., 207.
McGowan, Wild and Company, 249.
 Machine cutting and welding, 321, 363, 366, 385. See also Oxygraph.
McKelway, G. H., 355.
Matthews and Yates, Cyclone Works, 241.
Mauran, Max, 269.
Mawson, Robert, 477, 478, 478a.
Memmo, 23.
Michaelis, L., 27, 84, 85.
Michaelis, Max, 208.
Morehead, J. M., 271, 272, 435.
Morrison, A. Cressy, 209.
Murray, Kenneth, 357.
National Board of Fire Underwriters, 210.
 Navy, Use in, 454.
Nichols, Edward L., 6, 7.
 Nickel welding, 179, 457.
Niess, 153.
Nyquist, C. J., 359.
 Ostermann and Flüs automatic apparatus, 268.
"Oxweld" Acetylene Company, 436, 437.
Oxy-Benz process, 254, 337, 339, 365.
Oxy-carbi Company, portable outfit, 146, 273, 284.
 —— —— process, 212.
Oxygenite, 92, 147.
"Oxygraph", The, 321, 363, 366.
 Oxy-hydrogen welding, comparison of cost, 15, 31, 49.
Perkins, Frank C., 215, 216, 482.
Peter, 46.
 Pintsch gas works, tests at, 69.
 Pipe welding, 159 213, 259, 268, 279, 314, 326, 345, 384, 389, 409, 431, 463, 471, 476.
Pleiss, Paul, 367, 443.
Plumley, M. S., 368.
 Portable outfits, 81, 82, 93, 114, 145, 146, 218, 232, 273, 274, 284, 420.
 Preheating, 226, 385, 444.
 Pressure of gas, see: Gas pressure.
Prest-o-lite Company, 370, 438, 440.
Prussia, Minister für Handel und Gewerbe, 154, 155, 285, 445.
Punde, F., 371.
 Purification of gas. See: Gas Purification.
Ragno, S., 217.
Rasch, H., 446.
 Razing, see: Wrecking.
 Regulation of flame, 448.
Reich, W. I., 95, 96, 157, 158, 218, 372.
Reischle, J., 97.
 Repairs. See Automobile repairs, Boiler repairs, Locomotive and machinery repairs.
 Restrictions. See: Rules.
Reyer, William C., and *R. W. Clark*, 219.
Richardson, D., 483.
Richter, Hermann, 286, 373, 450, 484.
Rinne, H., 159, 220.
Rodrigues-Ely, C. See *Ganthier, E.*, and *Rodriguez-Ely, C.*
 Rods, welding. See: Welding rods.
Rosenberg, P. See: *Granjon, R.*, and *P. Rosenberg*.
 Rosenthal patent, 101.
Ruck-Keene, Harry, 47.
 Rules governing oxy-acetylene apparatus. 281, 287, 445.
Rupert, J. W., 160.
Rush, J. K., 28.
 Safe blowing, Use for, 48.
 Safety, 188, 308, 309, 310, 336, 374, 446. See also: Accidents.
 Sanford Manufacturing Company apparatus, 82.

- Sauerstofffabrik, 302.
"Schemmel" welding outfit, 414.
Schmitz tube welding machine, 384.
Schneider, 379.
Schneider, Alfred, 289, 378, 451.
Schneider, Ernst, 29, 49.
Schools, welding, 272, 286, 429, 464.
Schoop, M. V., 50, 51, 52, 161.
Schoop process, 56.
Schultz-Knault Company process, 159.
Schulze, 99.
Schwarz, Rudolf, 222.
Seliger, P., 380.
Setz, H. R., 381.
Sheet metal work, 291, 292, 298, 303, 385, 386, 400, 455, 478a.
Silicon used in welding, 382.
Smith, H. S., 223.
Société l'Oxy-hydrique, 167.
Springer, J. F., 163, 224, 225, 226, 227, 292, 293, 294, 295, 296, 297, 298, 383, 384, 385, 386, 454, 455.
Stavenhagen, A., 387.
Steelmann, James, 389.
Strength of welds. See Tests on welds.
Surface hardening, 485.
Suscipi, L. G., 228.
Syo, E. de, 229, 300, 390, 391, 392, 393, 457, 458, 459, 460, 461.
Temperature of flame, 6, 7, 62, 166, 344, 482.
Tests on welds, 158, 178, 223, 234, 245, 257, 267, 311, 343, 359, 462. See also Failure of welds.
Thermit welding, 350.
Thoma, Leo, 164, 301, 302, 463.
Thomas, R., 54, 303.
"Three-License system," 412.
Torches. See Burners.
Treiber, E., 230.
Tube welding. See Pipe welding.
Tucker, Alexander E., 304, 395.
Union de la Soudure, 318, 324, 325.
Van Brussel, J. B., 100.
Vogel, J. H., 102, 168, 233, 305.
Warfel, J. A., 397.
Water seals, 233, 235, 236, 243, 256, 285, 289, 324, 338, 340, 378. See also Flash-back.
Welding powers, 143.
Welding rods, 481.
Welding table, 128.
White, Edwin H., 308, 309, 310.
White, Homer J., 401.
Whitford, J. F., 487.
Whittemore, Herbert L., 234.
Willenbacher, A., 235.
Willis, T. F., 170.
Wiss, E., 31, 171.
Worcester Pressed Steel Company, Plant of, 32, 33, 34, 35, 45, 86.
Wrecking buildings and bridges, etc., 98, 156, 246, 262, 294, 335, 348, 361, 438, 439, 440, 447, 449, 486. See also Cutting.
Younger, A. Scott, 172.
Zinc welding, 457.

UNIVERSITY OF CALIFORNIA LIBRARY,
BERKELEY

THIS BOOK IS DUE ON THE LAST DATE
STAMPED BELOW

Books not returned on time are subject to a fine of
50c per volume after the third day overdue, increasing
to \$1.00 per volume after the sixth day. Books not in
demand may be renewed if application is made before
expiration of loan period.

JUL 26 1930

50m-7,29

N.Y. Public li- 293775
brary.

TS227

List of works in the
library relating to
oxy-acetylene welding

N4

26 10.

Jones

JUL 1930 1930

293775

n. y. Public lib.

TS227

N4

UNIVERSITY OF CALIFORNIA LIBRARY

