

Occupational Diseases

By

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OCCUPATIONAL DISEASES

In Relation to Compensation and
Health Insurance

BY

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PREFACE

THE problem of sickness in its various phases has been attracting considerable attention of recent years. This may perhaps be due to the rising interest in all aspects of preventive medicine as distinguished from curative medicine and to the mounting costs of sickness. For the wage-earner serious illness approaches the stage of being almost a calamity, as with limited means the problem of obtaining adequate medical care, necessary after-care and industrial rehabilitation, becomes a most serious one. And yet, each year large numbers of industrial workers are compelled to face the consequences of serious and debilitating illness, lack of income during such time of involuntary unemployment, needs of dependents and subsequent readjustments. Many of these workers are not even entitled to the benefits of the workmen's compensation laws, for their ailments are to be classified as occupational diseases which are but infrequently covered by such laws. Similar situations were faced for many years by workers in other countries where industry was highly developed. Measures have been taken by many of the European governments to meet the problem of industrial hazards created by rapid industrialization, through instituting systems of sickness or health insurance. Some thought has been given to the subject in this country. The purpose of this volume is to review the various hazards to which many workers are being regularly exposed, and to determine whether a system of health insurance can be applied to meet the large number of cases of occupational diseases and industrial poisoning.

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BIBLIOGRAPHY

Books

- Agricola, Georgius, *De Re Metallica*, translated from the first Latin edition of 1556 by Hoover, Herbert C. and Lou H. (London, 1912). 640 p.
- Arlidge, J. T., *The Hygiene, Diseases and Mortality of Occupations* (London, 1892). 568 p.
- Ashley, Annie, *The Social Policy of Bismarck* (London, 1912). 95 p.
- Aub, J. C., Minot, A. S., Fairhall, L. T. and Resnikoff, P., *Lead Poisoning* (Baltimore, 1926). 265 p.
- Bailey, W. F., *A Treatise on the Law of Personal Injuries* (Chicago, 1912). 3 vol.
- Beckner, E. R., *A History of Illinois Labor Legislation* (Chicago, 1929). 539 p.
- Beddoes, Thomas, *Essay on the Causes, Early Signs and Prevention of Pulmonary Consumption* (London, 1799). 274 p.
- Bradbury, Harry B., *Workmen's Compensation Law* (New York, 1917). 1285 p.
- Brend, William A., *Health and the State* (London, 1917). 354 p.
- Burkitt, Miles C., *Prehistory*, 2nd ed. (Cambridge, 1925). 438 p.
- Buxton, L. H. Dudley, *Primitive Labour* (London, 1924). 272 p.
- Clark, George L., *The Law of Torts* (Columbia, Mo., 1926). 359 p.
- Cohen, Joseph L., *Social Insurance Unified* (London, 1924). 157 p.
- , *Workmen's Compensation in Great Britain* (London, 1923). 232 p.
- Commons, J. R. and Andrews, J. B., *Principles of Labor Legislation* (New York, 1920). 559 p.
- Cox, Alfred, *Seven Years of National Health Insurance in England* (Chicago, 1921). 43 p.
- Dawbarn, C. Y. C., *Employers' Liability to their Servants at Common Law and under the Employers' Liability Act of 1880* (London, 1911), 4th ed. 714 p.
- Dublin, Louis I., *Health and Wealth* (New York, 1928). 361 p.
- Ellingwood, A. R. and Coombs, W., *The Government and Labor* (New York, 1926). 639 p.
- Ferrero, Guglielmo, *The Greatness and Decline of Rome*, translated by Zimmern, Alfred E. (London, 1907). 5 vol.
- Freund, Ernst, *The Police Power* (Chicago, 1914). 819 p.

- Geikie, James, *Antiquity of Man in Europe* (Edinburgh, 1913). 328 p.
- Glotz, Gustave, *The Aegean Civilization* (London, 1925). 422 p.
- Goldman, Franz and Grotjahn, Alfred, *Benefits of the German Sickness Insurance System* (Geneva, 1928). 188 p.
- Gordon, Alban, *Social Insurance* (London, 1924). 150 p.
- Hackett, J. D., *Health Maintenance in Industry* (New York, 1925). 488 p.
- Haldane, J. S., Martin, J. S. and Thomas, R. A., *Report on the Health of Cornish Miners* (London, 1904). 107 p.
- Hamilton, Alice, *Industrial Poisons in the United States* (New York, 1925). 590 p.
- Harper, Samuel A., *The Law of Workmen's Compensation in Illinois* (Chicago, 1920), 2nd ed. 404 p.
- Heeren, A. H. L., *Historical Researches in Politics* (London, 1810). 2 vol.
- Hill, Leonard, *Caisson Sickness* (London, 1912). 255 p.
- Hoffman, F. L., *Facts and Fallacies of Compulsory Health Insurance* (Newark, 1917). 101 p.
- Hoffman, F. L., *The Mortality from Cancer Throughout the World* (Newark, 1915). 826 p.
- Honnold, A. B., *Treatise on the American and English Workmen's Compensation Acts* (Kansas City, 1917). 2 vol.
- Hutchins, B. L. and Harrison, A., *A History of Factory Legislation* (Westminster, 1903). 372 p.
- International Labour Office, *Compulsory Sickness Insurance* (Geneva, 1927). 794 p.
- , *Voluntary Sickness Insurance* (Geneva, 1927). 470 p.
- Kober, G. M. and Hanson, M., *Diseases of Occupation* (Philadelphia, 1916). 918 p.
- Kober, G. M. and Hayhurst, E. R., *Industrial Health* (Philadelphia, 1924). 1184 p.
- Lawes, Edward T. H., *The Law of Compensation for Industrial Disease* (London, 1909). 288 p.
- Legge, T. M. and Goadby, K. W., *Lead Poisoning and Lead Absorption* (London, 1912). 308 p.
- Lloyd George, David, *The People's Insurance* (London, 1911). 161 p.
- Macalister, Robert A. S., *A Text Book of European Archaeology* (Cambridge, 1921). 2 vol.
- National Bureau of Economic Research, *Income in the United States 1909-1919* (New York, 1922). 2 vol.
- National Industrial Conference Board, *Medical Care of Industrial Workers* (New York, 1926). 112 p.
- , *Sickness Insurance or Sickness Prevention?* (New York, 1918). 24 p.
- , *The Work of the International Labour Organisation* (New York, 1928). 197 p.

- , *Wages in the United States in 1928* (New York, 1929). 41 p.
- , *Workmen's Compensation Acts in the United States* (New York, 1917). 62 p.
- Oliver, Thomas, *Dangerous Trades* (London, 1902). 891 p.
- , *Diseases of Occupation* (New York, 1916). 427 p.
- , *Lead Poisoning* (London, 1914). 294 p.
- Pancoast, H. K. and Pendergrass, E. P., *Pneumoconiosis* (New York, 1926). 160 p.
- Price, George M., *The Modern Factory* (New York, 1914). 574 p.
- Ramazzini, Bernardino, *On the Diseases of Artificers*, translated by James R. (London, 1750). 296 p.
- Rubinow, I. M., *Social Insurance* (New York, 1913). 525 p.
- , *Standards of Health Insurance* (New York, 1916). 322 p.
- Schrumpf, P., *Tobacco and Physical Efficiency* (New York, 1927). 134 p.
- Sherman, P. T., *Criticism of a Tentative Draft of an Act for Health Insurance* (New York, 1917). 93 p.
- Smith, Andrew H., *The Effects of High Atmospheric Pressure*, including the *Caisson Disease* (Brooklyn, 1873). 53 p.
- Sohm, Rudolph, *Institutes of Roman Law*, translated by Ledlie, J. C. (Oxford, 1907). 606 p.
- Spencer, Herbert, *Principles of Sociology* (New York, 1898). 3 vols.
- Taylor, Isaac, *The Origin of the Aryans* (London, 1889). 198 p.
- Taylor, R. W. C., *The Factory System and the Factory Acts* (London, 1894). 184 p.
- Thackrah, Charles T., *The Effects of Arts, Trades and Professions on Health and Longevity* (London, 1832), 2nd ed. 238 p.
- Thompson, W. Gilman, *The Occupational Diseases* (New York, 1914). 724 p.
- Thompson, W. H., *Workmen's Compensation* (London, 1922). 96 p.
- Webb, Mrs. Sidney, *The Case for the Factory Acts* (London, 1902). 233 p.
- Weyl, Theodor, *Handbuch der Arbeiterkrankheiten* (Jena, 1908). 809 p.
- Woodbury, Robert M., *Social Insurance, an Economic Analysis* (New York, 1917). 171 p.
- World Peace Foundation, *Record of the International Labour Organization* (Boston, 1928). 237 p.
- Young, Thomas, *A Practical and Historical Treatise on Consumptive Diseases* (London, 1815). 496 p.

PERIODICALS, PAMPHLETS AND REPORTS

- American Journal of Medical Sciences*, vol. 155 (Philadelphia, Feb., 1918).
- American Journal of Public Health*, vol. xviii, no. 5 (New York, May, 1928); vol. xix, no. 5, May, 1929; vol. xix, no. 6 (June, 1929).

- American Labor Legislation Review*, vol. i (New York, 1911); vol. ii, 1912; vol. iii, 1913; vol. iv, 1914; vol. vi, 1916; vol. vii, 1917; vol. viii, 1918; vol. xv, 1925; vol. xvii, 1927; vol. xviii, 1928.
- Boston Medical and Surgical Journal*, vol. 197, no. 28 (Boston, Jan. 12, 1928).
- British Medical Journal*, vol. ii (London, Sept., 1928).
- California Social Insurance Commission Report* (Sacramento, Jan., 1917, 1919).
- Committee on the Costs of Medical Care, Publication no. 2* (Washington, 1929).
- Connecticut Commission on Public Welfare Report* (Hartford, 1919).
- England, *Chief Inspector Factories and Workshops* (London, 1918).
- England and Wales, *The Registrar-General's Decennial Supplement*, pt. ii (London, 1921), 1927.
- Folks, Homer, *The Distribution of the Cost of Sickness in the United States* (New York, 1928), pamphlet.
- Harpers Magazine*, August, 1929 (New York).
- Illinois Commission on Occupational Diseases Report* (Springfield, Jan., 1911).
- Illinois Health Insurance Commission Report* (Springfield, 1917).
- International Labour Office, *Compensation for Occupational Diseases*, Series M, no. 3 (Geneva, 1925).
- , *Industrial and Labour Information*, vol. xxv, no. 5, Jan. 30, 1928.
- , *Occupation and Health Brochure*, nos. 3, 4, 5, 7, 8, 14, 21, 22, 25, 1925; nos. 54, 63, 67, 1926; nos. 77, 78, 1927; nos. 82, 84, 88, 94, 96, 99, 103, 126, 128, 1928.
- The Insurance Almanac* (New York, 1929).
- Journal American Medical Association*, vol. 48, no. 13 (Chicago, March 30, 1907); vol. 60, no. 9, March 1, 1913; vol. 66, no. 1, Jan. 1, 1916.
- Journal of Industrial Hygiene*, vol. i, no. 2 (Baltimore, June, 1919); vol. i, no. 4, Aug., 1919; vol. iii, no. 8, Dec., 1921; vol. iv, no. 4, Aug., 1922; vol. iv, no. 6, Oct., 1922; vol. iv, no. 7, Nov., 1922; vol. iv, no. 8, Dec., 1922; vol. vi, no. 3, July, 1924; vol. vii, no. 1, Jan., 1925; vol. ix, no. 4, April, 1927; vol. ix, no. 8, Aug., 1927; vol. x, no. 4, April, 1928; vol. x, no. 5, May, 1928; vol. x, no. 6, June, 1928; vol. x, no. 9, Nov., 1928; vol. xi, no. 2, Feb., 1929.
- The Lancet*, no. 5487 (London, Oct. 27, 1928); no. 5541, Nov. 9, 1929.
- Massachusetts Special Commission on Social Insurance Report* (Boston, 1917).
- Massachusetts Revised Rules and Regulations Pertaining to the Painting Business* (Boston, Dec., 1925).
- Massachusetts Department of Industrial Accidents, *Annual Report for the Year ending June 30, 1927* (Boston, 1927).
- Massachusetts Department of Labor and Industry: Division of Industrial Safety, *Report for Year ending Nov. 30, 1928*.

BIBLIOGRAPHY

- Metropolitan Life Insurance Co., *Statistical Bulletin*, vol. ix, no. 6 (New York, June, 1928); vol. x, no. 11, Nov., 1929; vol. x, no. 12, Dec., 1929.
- National Civic Federation, *Report of 17th Annual Meeting* (New York, Feb. 3, 1917).
- National Safety Council, *Final Report of the Committee on Spray Coating* (Chicago, 1927).
- New Jersey Commission on Old Age, *Insurance and Pensions Report* (Trenton, Nov., 1917).
- New Jersey Department of Labor, *The Industrial Bulletin* (Trenton, June, 1929).
- New York City Department of Health, *Monograph no. 15*, Dec., 1915.
—, *Reprint no. 83*, Nov., 1919.
—, *Annual Report*, 1928.
- New York Medical Journal*, vol. 107 (New York, June, 1918).
- New York State Factory Investigation Commission *Second Report*, vol. ii (Albany, 1913).
- New York State Department of Labor, *Annual Report* (Albany, 1927).
—, *Bulletin no. 83*, July, 1917.
—, *Bulletin no. 90*, Dec., 1918.
—, *Bulletin no. 101*, Dec., 1920.
—, *The Industrial Bulletin*, vol. vi, no. 4, Jan., 1927.
—, *The Industrial Bulletin*, vol. viii, no. 2, Nov., 1928.
—, *The Industrial Bulletin*, vol. viii, no. 3, Dec., 1928.
—, *The Industrial Code Bulletin*, no. 4, effective June 15, 1914.
—, *The Industrial Code Bulletin*, no. 10, effective April 15, 1915.
—, *The Industrial Code Bulletin*, no. 11, effective April 15, 1915.
—, *The Industrial Code Bulletin*, no. 12, effective May 15, 1915.
—, *The Industrial Code Bulletin*, no. 17, effective July 1, 1918.
—, *The Industrial Code Bulletin*, no. 27, effective Oct. 1, 1924.
—, *The Industrial Code Bulletin*, no. 29, effective Nov. 1, 1926.
—, *The Industrial Hygiene Bulletin*, vol. viii, no. 10, April, 1927.
—, *The Industrial Hygiene Bulletin*, vol. v, no. 2, Aug., 1928.
—, *The Industrial Hygiene Bulletin*, vol. v, no. 6, Dec., 1928.
—, *The Industrial Hygiene Bulletin*, vol. v, no. 11, May, 1929.
- New York Times*, June 20, 1928; December 21, 1928; January 31, 1930.
- New South Wales Director General of Public Health, *Report for 1925*.
- Ohio Health Insurance and Old Age Commission Report* (Columbus, 1919).
- Ohio State Board of Health, *Survey of Industrial Health Hazards and Occupational Diseases in Ohio*, Feb., 1915.
- Ontario, Canada Department of Health *Annual Report*, 1926.
- Pennsylvania Health Insurance Commission *Report* (Harrisburg, Jan., 1919).

- Royal Commission on National Health Insurance Report* (London, 1926).
- Scientific American*, Dec. 25, 1920 (New York).
- Statistic des Deutschen Reichs*, Band 338, Die Krankenversicherung (Berlin, 1927).
- Survey*, Jan. 1, 1930 (New York).
- Union of South Africa Miners' Phthisis Medical Bureau Report* (Pretoria, 1929); *Report 1930*.
- United States Bureau of Labor Statistics, *Bulletin*, no. 82 (Washington, 1909); no. 86, 1910; no. 120, 1913; no. 141, 1914; no. 165, 1915; no. 179, 1915; no. 207, 1917; no. 209, 1917; no. 212, 1917; no. 231, 1918; no. 267, 1920; no. 293, 1922; no. 312, 1923; no. 405, 1926; no. 423, 1926; no. 426, 1927; no. 427, 1927; no. 460, 1928; no. 465, 1928; no. 488, 1929; no. 507, 1930.
- United States Bureau of Labor Statistics, *Monthly Labor Review*, vol. ii, no. 6, June, 1916; vol. iii, no. 1, July, 1916; vol. iii, no. 5, Nov., 1916; vol. iv, no. 2, Feb., 1917; vol. iv, no. 4, April, 1917; vol. vi, no. 1, Jan., 1918; vol. vi, no. 5, May, 1918; vol. vi, no. 6, June, 1918; vol. viii, no. 1, Jan., 1919; vol. viii, no. 2, Feb., 1919; vol. viii, no. 5, May, 1919; vol. viii, no. 6, June, 1919; vol. ix, no. 1, July, 1919; vol. ix, no. 9, Sept., 1919; vol. ix, no. 6, Dec., 1919; vol. x, no. 2, Feb., 1920; vol. x, no. 4, Apr., 1920; vol. xxi, no. 5, Nov., 1925; vol. xxvi, no. 4, April, 1928; vol. xxvi, no. 6, June, 1928; vol. xxvii, no. 1, July, 1928; vol. xxvii, no. 2, Aug., 1928; vol. xxvii, no. 3, Sept., 1928; vol. xxvii, no. 5, Nov., 1928; vol. xxviii, no. 6, June, 1929; vol. xxix, no. 1, July, 1929.
- United States Bureau of Mines, *Technical Paper*, no. 105, 1915; no. 260, 1921.
- United States Bureau of Mines, *Bulletin* no. 132, 1917.
- United States Census of Manufactures*, 1925.
- United States Census of Occupations*, 1920.
- United States Commissioner of Labor, *24th Annual Report*, vol. i, 1909.
- United States Public Health Bulletin*, no. 76, 1916; no. 85, 1917; no. 116, 1921; no. 162, 1926; no. 176, 1928.
- United States Public Health Report*, vol. 35, no. 37, Sept. 10, 1920; vol. 37, no. 10, March 10, 1922; vol. 37, no. 50, Dec. 15, 1922; vol. 40, no. 7, Feb. 13, 1925; vol. 43, no. 25, June 22, 1928; vol. 43, no. 29, July 20, 1928; vol. 45, no. 3, Jan. 17, 1930.
- United States Secretary of Labor, *Annual Report 1927*.
- Wisconsin Special Commission on Social Insurance Report* (Madison, 1919).
- Wisconsin Labor Department Statistical Bulletin* no. 20 (Madison, Sept. 5, 1929).

LAWS

- Alabama Code of 1923, sec. 1724.
- Alaska Acts of 1917, ch. 4, sec. 2.
- California General Laws, Sims' Deerings' Codes 1906, Act no. 1098, sec. 4, as amended 1909, ch. 52.
- California Acts of 1913, ch. 81, secs. 1-6.
- California Acts of 1913, ch. 186, sec. 1.
- California Acts of 1915, ch. 275.
- California Acts of 1917, ch. 312.
- California Acts of 1917, ch. 586, as amended 1919, ch. 471.
- Colorado Compiled Laws 1921, sec. 3482, secs. 4172-4173.
- Connecticut Laws 1917, ch. 163.
- Connecticut General Statutes 1918, sec. 2350.
- Connecticut General Statutes 1918, sec. 5388, as amended 1927, ch. 307, sec. 7.
- Connecticut Laws, sec. 2416, as amended 1923, ch. 93.
- Delaware Revised Code 1914, ch. 3145, sec. 45, as amended 1923, ch. 202.
- Delaware Acts of 1917, ch. 231, sec. 6.
- District of Columbia, 45 Stat. 600; 44 Stat. 1424.
- Illinois Revised Statutes 1917, ch. 48, secs. 43-46; ch. 48, sec. 99; ch. 48, sec. 154, p. 1469.
- Illinois Acts of 1923, p. 352.
- Indiana Acts of 1919, ch. 39, sec. 1.
- Indiana Acts of 1923, ch. 42, sec. 10.
- Kentucky Acts of 1916, ch. 33, sec. 1, as amended 1918, ch. 176; 1922, ch. 50; 1924, ch. 70.
- Kentucky Acts of 1919, ch. 162, sec. 2, as amended 1921, ch. 142; 1925, ch. 222.
- Louisiana Acts of 1912, Act no. 301, sec. 19.
- Maine Revised Statutes 1916, ch. 19, sec. 19.
- Maryland Public General Laws, Code of 1911, sec. 5g; added 1912, ch. 165.
- Massachusetts Acts of 1916, ch. 33, sec. 1, as amended 1918, ch. 176; 1922, ch. 50; 1924, ch. 70.
- Massachusetts Laws of 1917, ch. 130.
- Massachusetts General Laws 1921, sec. 142; ch. 149, sec. 54; secs. 117-120; ch. 152.
- Michigan Compiled Laws 1915, sec. 5166.
- Missouri Revised Statutes 1919, secs. 6817-6818.
- Minnesota General Statutes 1913, sec. 3899.
- Minnesota Acts of 1919, sec. 20; ch. 84, secs. 6-10.
- Minnesota Acts of 1921, ch. 82, pt. 2, sec. 67.
- Nevada Acts of 1913, ch. 125, secs. 1-2.

- New Hampshire Acts of 1913, ch. 118, sec. 1.
- New Mexico Annotated Statutes 1915, sec. 3521.
- New Jersey Compiled Statutes 1910, sec. 33, as amended 1912, ch. 5; sec. 35.
- New Jersey Acts of 1911, ch. 95; added 1924, ch. 124, sec. 2; ch. 198.
- New Jersey Acts of 1914, ch. 121.
- New Jersey Acts of 1917, ch. 277.
- New York Consolidated Laws 1909, art. ii, secs. 28-29; art. iv, sec. 146, as amended 1921, ch. 642, sec. 147; art. vii, sec. 206; art. xi, sec. 293, para. 2; art. xii, sec. 299; ch. 67, added by 1914, ch. 41; as amended 1920, ch. 538; 1922, ch. 615; 1928, ch. 754; 1929, ch. 298; 1930, ch. 60.
- North Dakota Acts of 1919, ch. 162, sec. 2; as amended 1921, ch. 142; 1925, ch. 222.
- North Dakota General Laws 1921, ch. 152, sec. 26.
- Ohio General Code 1910, sec. 1011; added 1923, p. 314; sec. 6330.
- Ohio Laws of 1917, p. 520.
- Ohio General Code, secs. 1465-1468a; added 1921, p. 181.
- Pennsylvania Statutes 1920, secs. 5424-5436; sec. 13593.
- Porto Rico Acts of 1928, art. no. 85, sec. 3.
- Rhode Island General Laws 1923, ch. 163, sec. 23.
- United States Statutes, Act of April 9, 1912, secs. 6271-6287.
- United States Acts of 1915-1916, sec. 40; as amended 1924, ch. 261.
- Wisconsin Laws of 1917, ch. 604.
- Wisconsin Statutes 1923, sec. 69.49; sec. 102.35; sec. 103.05, para. 3; sec. 110.04.

TABLE OF CASES CITED

- Adams v. Acme White Lead and Color Works*, 182 Mich. 157, 148 N. W. 485 (1914).
- Aetna Life Insurance Co. v. Graham*, Texas Appeal Comm. Sec. B. 284 S. W. 931 (1926).
- Amesbury v. Vacuum Oil Co.*, 9 N. Y. St. Dep. Rep. 399 (1916).
- Amsterdam v. Hammer Bros.*, N. Y. S., 210 App. Div. N. Y. 816 (1924).
- Anderson v. Baxter*, Sup. Ct. Penn., Feb., 1926, 132 Atl. 358.
- Anderson v. Carnegie Steel Co.*, 255 Penn. 33, 99 Atl. 215 (1916).
- Becton v. Deas Paving Co.*, M. and S. La. Digest 154, 3 La. App. 683 (1926).
- Bergeron's Case*, 243 Mass. 366, 137 N. E. 739 (1923).
- Eorgnis v. Falk Co.*, 147 Wis. 327, 133 N. W. 209 (1911).
- Borgsted v. Schultz Bread Co.*, 167 N. Y. S. 647, 180 App. Div. 229 (1917).
- In re Bowers, Williams, Colan*, 65 Ind. App. 128, 116 N. E. 842 (1917).
- Brinton's Ltd. v. Turvey*, A. C. 230, 7 W. C. C. I. (1905).
- Broussard v. Union Sulphur Co.*, 5 La. App. 340, La. Digest 160 (1927).

BIBLIOGRAPHY

- Burckard *v.* Industrial Comm., 22 Ohio L. R. 420 (Common Pleas), (1924).
- Campbell *v.* Industrial Comm. of Ohio, Ohio Ct. of Appeals, 1926, 153 N. E. 276.
- Cantor *v.* Elsmere Garage *et al.*, 212 N. Y. S. 327, 214 App. Div. 351 (1925).
- Carroll *v.* Industrial Comm. of Colo., 69 Colo. 473, 195 Pac. 1097 (1921).
- Chicago Rawhide Mfg. Co. *v.* Industrial Comm., 291 Ill. 616, 126 N. E. 616 (1920).
- Chop *v.* Swift and Co., 118 Kan. 35, 233 Pac. 800 (1925).
- Cishowski *v.* Clayton Mfg. Co. *et al.*, 105 Conn. 651, 136 Atl. 472 (1927).
- Clark *v.* Lehigh Valley Coal Co., 264 Penn. 529, 107 Atl. 858 (1919).
- Clinchfield Carbocoal Corp. *v.* Kiser, 139 Va. 387, 124 S. E. 271 (1924).
- Columbine Laundry Co. *v.* Industrial Comm., 73 Colo. 397, 215 Pac. 870 (1923).
- Cooke *v.* Holland Furnace Co., 200 Mich. 192, 166 N. W. 1013 (1918).
- Crooks *v.* Tazewell Coal Co., 263 Ill. 343, 105 N. E. 132 (1914).
- In re* Crowley, 223 Mass. 288, 111 N. E. 786 (1916).
- Cunningham *v.* Northwestern Improvement Co., 44 Mont. 180, 119 Pac. 554 (1911).
- Curtis-Warner Corp. *v.* Gorman, Sup. Ct. N. Y., Oct., 1925, 130 Atl. 538.
- De La Pena *v.* Jackson Stone Co., 103 Conn. 93, 130 Atl. 89 (1925).
- Depre *v.* Pacific Coast Forge Co., 145 Wash. 263, 259 Pac. 720 (1927).
- Dillingham's Case, Sup. Jud. Ct. Maine, Aug., 1928, 142 Atl. 865.
- D'Oliveri *v.* Austin Nichols and Co. *et al.*, 207 N. Y. S. 699, 211 App. Div. 295 (1925).
- Dumblaskey *v.* Phila. and Reading Coal and Iron Co., 270 Penn. 22, 112 Atl. 745 (1921).
- Dumbrowski *v.* Jennings and Griffin Co., Sup. Ct. Errors Conn., Jan., 1926, 131 Atl. 745.
- Dupre *v.* Atlantic Refining Co., 98 Conn. 646, 120 Atl. 288 (1923).
- Eldridge *v.* Endicott, Johnson and Co., 189 N. Y. App. Div. 53, 126 N. E. 254 (1920).
- Elkhorn Coal Corp. *v.* Kerr, 203 Ky. 804, 263 S. W. 342 (1924).
- Ellerman *v.* Industrial Comm., 73 Colo. 20, 213 Pac. 120 (1923).
- Farwell *v.* Boston and Worcester R. Co., 4 Metcalf (Mass.) 49 (1842).
- Fowler *v.* Risedorph Bottling *et al.*, 161 N. Y. S. 535, 175 N. Y. App. Div. 224 (1916).
- Fritz *v.* Elk Tanning Co., 258 Penn. 180, 101 Atl. 958 (1917).
- Gay *v.* Hocking Coal Co., 184 Iowa 948, 169 N. W. 360 (1918).
- Gibb *v.* New Field By-Products Coal Co., 287 Penn. 300, 135 Atl. 207 (1926).
- Gilliland *et al. v.* Ash Grove Lime and Portland Cement Co., 104 Kan. 771, 180 Pac. 793 (1919).

- Glennon's Case, 236 Mass. 542, 128 N. E. 942 (1920).
- Gordon *v.* Travelers Insurance Co., Texas Civil App., Oct., 1926, 287 S. W. 911.
- Guthrie *v.* Detroit Shipbuilding Co., 200 Mich. 355, 167 N. W. 37 (1918).
- Hawkins *v.* Bleakly, 243 U. S. 210, 37 Sup. Ct. 255 (1917).
- Hayden *v.* Smithville Mfg. Co., 29 Conn. 548 (1861).
- Healey's Case, Sup. Jud. Ct. Maine, Sept., 1924, 126 Atl. 21.
- Heiers *v.* Hull and Co., 164 N. Y. S. 767, 178 App. Div. 350 (1917).
- Heilerman Brewing Co. *v.* Schultz, 161 Wis. 46, 152 N. W. 446 (1915).
- Hoag *v.* Kansas Independent Laundry, 113 Kan. 513, 215 Pac. 295 (1923).
- Holnagle *v.* Lansing Fuel and Gas Co., 200 Mich. 132, 166 N. W. 843 (1918).
- Houston Packing Co. *v.* Mason, Texas Civil App. 1926, 286 S. W. 862.
- In re* Hurle, 217 Mass. 223, 104 N. E. 336 (1914).
- Indian Creek Coal and Mining Co. *v.* Calvert, 68 Ind. App. 474, 119 N. E. 519 (1918).
- Industrial Comm. *v.* Rice, 26 Ohio App. 497, 160 N. E. 484 (1927).
- Industrial Comm. *v.* Russell, 111 Ohio 692, 146 N. E. 305 (1924).
- Ives *v.* So. Buffalo R. Co., 201 N. Y. 271, 94 N. E. 431 (1911).
- Iwanicki *v.* State Ind. Acc. Comm., 104 Ore. 650, 205 Pac. 990 (1922).
- Jakub *v.* Industrial Comm. *et al.*, 288 Ill. 87, 123 N. E. 263 (1919).
- Jeffreyes *v.* Charles H. Sager Co., 191 N. Y. S. 354, 198 App. Div. 446 (1921).
- Jellico Coal Co. *v.* Adkins, 197 Ky. 684, 247 S. W. 972 (1923).
- Jenson *v.* So. Pacific Co., 215 N. Y. 514, 109 N. E. 600 (1915).
- In re* Johnson, 217 Mass. 388, 104 N. E. 735 (1914).
- Johnson *v.* London Guarantee and Accident Co., 217 Mass. 388, 104 N. E. 735 (1914).
- Johnson *v.* Mary Charlotte Min. Co., 199 Mich. 218, 165 N. W. 650 (1917).
- Judice *v.* Degnon Cons. Co., 167 N. Y. S. 1107, 181 N. Y. App. Div. 909 (1917).
- Kelly *v.* Watson Coal Co., 272 Penn. 39, 115 Atl. 885 (1922).
- Kentucky State Journal Co. *v.* Workmen's Compensation Board, 161 Ky. 562, 172 S. W. 674 (1914).
- Knock *v.* Industrial Accident Comm., Sup. Ct. Calif., Feb., 1927, 253 Pac. 712.
- Kosick *v.* Manchester Const. Co., 106 Conn. 107, 136 Atl. 870 (1927).
- Kovaliski *v.* Collins Co., 102 Conn. 6, 128 Atl. 288 (1925).
- Liondale Bleach, Dye and Paint Works *v.* Riker, 85 N. J. 426, 89 Atl. 929 (1914).
- Longobardi *v.* Sargent and Co., 100 Conn. 383, 124 Atl. 13 (1924).
- Madden's Case, 222 Mass. 487, 111 N. E. 379 (1916).
- In re* Maggelet, 228 Mass. 57, 116 N. E. 972 (1917).

BIBLIOGRAPHY

- Mailman *v.* Record Co., 118 Maine 172, 106 Atl. 606 (1919).
- Malvern Lumber Co. *v.* Sweeney, 116 Ark. 561, 172 S. W. 821 (1914).
- Manchline *v.* State Ins. Fund, 279 Penn. 524, 124 Atl. 168 (1924).
- Marton *v.* Pittsburg and Lake Erie R. Co., 203 U. S. 284 (1906).
- Matis *v.* Schaeffer, 270 Penn. 141, 113 Atl. 64 (1921).
- Matthiessen and Hegeler Zinc Co. *v.* Industrial Board, 284 Ill. 378, 120 N. E. 249 (1918).
- McGoey *v.* Turin Garage and Supply Co., 186 N. Y. S. 697, 195 App. Div. 436 (1921).
- McMurray *v.* Little and Ives Co., 3 N. Y. St. Dep. Rep. 395 (1915).
- Meade Fiber Corp. *v.* Starnes, 147 Tenn. 362, 247 S. W. 989 (1923).
- Mellquist *v.* Dakota Printing Co., 51 S. D. 359, 213 N. W. 947 (1927).
- Mesite *v.* International Silver Co., 104 Conn. 724, 134 Atl. 262 (1926).
- Midland Coal Co. *v.* Rucker's Administrator, 211 Ky. 582, 277 S. W. 838 (1925).
- Miller *v.* American Steel and Wire Co., 90 Conn. 349, 97 Atl. 345 (1916).
- Miller *v.* Director-General of Railroads, 270 Penn. 330, 113 Atl. 373 (1921).
- In re Mooradjian*, 229 Mass. 521, 118 N. E. 951 (1918).
- Mountain Timber Co. *v.* Washington, 243 U. S. 219, 37 Sup. Ct. 260 (1917).
- Munn *v.* Illinois, 94 U. S. 113 (1878).
- Newkirk *v.* Golden Cycle Min. and Red. Co., 79 Colo. 298, 244 Pac. 1019 (1926).
- New Marissa Coal Co. *v.* Industrial Comm., 326 Ill. 116, 157 N. E. 32 (1927).
- New River Coal Co. *v.* Files, 215 Ala. 64, 109 So. 360 (1926).
- New York Central R. Co. *v.* White, 243 U. S. 188, 37 Sup. Ct. 247 (1917).
- Nicholson *v.* Roundup Coal Mining Co., Sup. Ct. Mont., June, 1927, 257 Pac. 270.
- Ocean Accident and Guar. Corp. *v.* Industrial Comm., 66 Utah 600, 245 Pac. 343 (1926).
- O'Connell *v.* Adirondack Elec. Power Corp., 185 N. Y. S. 455, 193 App. Div. 582 (1920).
- O'Donnell's Case, 237 Mass. 164, 133 N. E. 621 (1921).
- Peoria R. Co. *v.* Industrial Bd., 279 Ill. 352, 116 N. E. 651 (1917).
- Perkins *v.* Jackson Cushion Spring Co., 206 Mich. 98, 172 N. W. 374 (1919).
- Peru Plow and Wheel Co. *v.* Industrial Comm., 311 Ill. 216, 142 N. E. 546 (1924).
- Pimental's Case, 235 Mass. 598, 127 N. E. 424 (1920).
- Priestly *v.* Fowler, 3 Meeson and Welsby 1, 6 England (1837).
- Purchase *v.* Grand Rapids Refrigerator Co., 194 Mich. 103, 160 N. W. 391 (1916).

- Puritan Bed Spring Co. *v.* Wolfe, 68 Ind. App. 330, 120 N. E. 417 (1918).
Republic Iron and Steel Co. *v.* Markowicz, 75 Ind. App. 57, 129 N. E. 710 (1921).
Retmier *v.* Cruse, 67 Ind. App. 192, 119 N. E. 32 (1918).
Richardson *v.* Greenberg, 176 N. Y. S. 651, 188 N. Y. App. Div. 248 (1919).
Rosenthal *v.* National Aniline and Chemical Co., 215 N. Y. S. 621, 216 App. Div. 588 (1926).
Roth *v.* Industrial Comm., 7 Ohio App. 386, 120 N. E. 172 (1918).
Samoskie *v.* Phila. and Reading Coal and Iron Co., 280 Penn. 203, 124 Atl. 471 (1924).
Sayles *v.* Foley, 38 R. I. 484, 96 Atl. 340 (1916).
Slinger *v.* Muskegon Motor Specialties Co., 201 Mich. 473, 167 N. W. 949 (1918).
Smith *v.* International High Speed Tool Co., 98 N. J. 574, 120 Atl. 188 (1923).
Sokol *v.* Stein Fur Dyeing Co. *et al.*, 216 N. Y. S. 167, 216 App. Div. 573 (1926).
Southern Casualty Co. *v.* Flores, Texas Ct. Civil App., March, 1927, 294 S. W. 932.
Standard Cabinet Co. *v.* Landgrove, 76 Ind. App. 593, 132 N. E. 661 (1921).
State *ex. rel.* Davis-Smith Co. *v.* Clausen, 65 Wash. 156, 117 Pac. 1101 (1911).
State *ex. rel.* Rau *v.* District Ct. of Ramsey Co., 138 Minn. 250, 164 N. W. 916 (1917).
State *ex. rel.* Yaple *v.* Creamer, 85 Ohio 349 (1912).
Stombaugh *v.* Peerless Wire Fence Co., 198 Mich. 445, 164 N. W. 537 (1917).
Sugar Co. of Santa Ana *v.* Industrial Acc. Comm., 35 Cal. App. 652, 170 Pac. 630 (1918).
Tarr *v.* Hecla Coal and Coke Co., 265 Penn. 519, 109 Atl. 224 (1921).
Tercillo *v.* Ward Baking Co., 167 N. Y. S. 666, 180 N. Y. App. Div. 302 (1917).
Texas Employers' Insurance Assn. *v.* Jackson, Texas Comm. of App. Sec. B, Nov., 1924, 265 S. W. 1027.
Tintic Milling Co. *v.* Industrial Comm., 60 Utah 14, 206 Pac. 278 (1922).
U. S. Casualty Co. *v.* Matthews, 35 Ga. App. 526, 133 S. E. 875 (1926).
U. S. Fidelity and Guaranty Co. *v.* Industrial Comm., 76 Colo. 263, 230 Pac. 624 (1924).
Van Vleet *v.* Public Service Co. of York, 111 Neb. 51, 195 N. W. 467 (1923).
Victory Sparkler and Specialty Co. *v.* Francks, 147 Md. 368, 128 Atl. 635 (1925).

BIBLIOGRAPHY

- Vogeley *v.* Detroit Lumber Co., 196 Mich. 516, 162 N. W. 975 (1917).
Voorhees *v.* Smith, Schoonmaker Co., 86 N. J. 500, 92 Atl. 280 (1914).
Wabash R. Co. *v.* Industrial Comm., 286 Ill. 94, 121 N. E. 569 (1918).
Wager *v.* White Star Candy Co., 217 N. Y. S. 173, 217 N. Y. App. Div.
316 (1926).
Wallins Creek Collieries Co. *v.* Williams, 211 Ky. 200, 277 S. W. 234
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Walsh *v.* River Spinning Co., 41 R. I. 490, 103 Atl. 1025 (1918).
Ward *v.* Beatrice Creamery Co., 104 Okla. 91, 230 Pac. 872 (1924).
Wenrich *v.* Warning, 182 Wis. 379, 196 N. W. 824 (1924).
Western Metal Supply Co. *v.* Pillsbury, 172 Cal. 407, 155 Pac. 491 (1915).
West Side Coal and Mining Co. *v.* Industrial Comm., 321 Ill. 61, 151 N. E.
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Whittle *v.* National Aniline and Chemical Co., 266 Penn. 359, 109 Atl.
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Williams *v.* Missouri Valley Bridge and Iron Co., 212 Mich. 160, 180
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Wright *v.* Used Car Exchange, 223 N. Y. S. 245, 221 N. Y. App. Div.
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Young *v.* Western Furniture and Mfg. Co., 101 Neb. 696, 164 N. W.
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