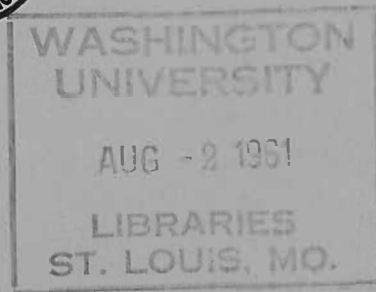


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Index to the Transactions and Journal
of the
New England Water Works Association

SECTION 1. 1882-1950

SECTION 2. 1950-1960



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INDEX TO THE TRANSACTIONS AND JOURNAL OF THE NEW ENGLAND WATER WORKS ASSOCIATION

TRANSACTIONS, 1883 TO 1885, JOURNAL VOLUMES I TO LXXIV

1886 TO 1960

Section 1. 1882-1950

Section 2. 1950-1960

FOREWORD

It was thought more practical to bring the Journal Index up to date by reproducing the 1950 Index as it was and adding a separate section for the period from 1950 to 1960, binding the two sections together. So there is no change in Section 1. In Section 2, the Index follows in general the same plan as Section 1, no new titles have been added but some old titles have been dropped or combined.

The Subject Index contains a classification of papers, topical discussions, reports of technical committees and specifications and standards of water works materials, equipment and structures. Cross references are limited to topics rather than papers. A few papers not related to water works matters are classified as "Miscellaneous."

The Author Index lists all papers published under an author's name, long and obscure titles being reworded.

Proceedings of meetings including reports of officers and standing non-technical committees, book reviews, presidential addresses unless confined to a specific technical subject are not indexed since they appear regularly in each volume.

The volume of the Journal appears in small Roman numerals, the page and year in larger Arabic numerals. The three volumes of Transactions for the three years 1883, 1884 and 1885 are identified by the abbreviation "Trans." The Journal was established in 1886 and the quarterly issues of the first two volumes were paged separately and are identified by interpolating the month of issue between volume and page number. Volumes I to XV began with the Sep-

tember issue, but in order to conform to the calendar year, later volumes were made to begin with the March issue, Volume XV (1900-1901) containing six issues, to permit this change.

KENNETH W. ROBBE

Brookline, Mass.

May 1961

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- COFFIN, GEORGE W.**
The new Clinton, Maine, water system and observations on ground water. lxii 250, 1948.
Water supply for the Logan Airport, East Boston, Mass. lxiv 45, 1950.
- COGGESHALL, R. C. P.**
Anchor ice. x 265, 1895-96.
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Log book for electrically driven pumps, New Bedford, Mass. xxii 173, 1918.
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Reservoir cleaning, New Bedford, Mass. iv 210, 1889-90.

- Temporary dam, New Bedford, Mass. iii 200, 1888-89.
- COLBURN, WELLEN H.**
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- COLE, E. SHAW**
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- COLE, EDWARD S.**
Water consumption statistics. xxv 66, 1911.
- COLEMAN, J. O. R.**
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- COLLINS, W. D.**
Industrial uses of water. lii 396, 1938.
- COLLINS, MICHAEL F.**
Filter operations, Lawrence, Mass. (With Morris Knowles and A. D. Marble.) xxii 193, 1908.
Lawrence filter. xvii 288, 1903.
- CONANT, G. H.**
Water disinfecting tablets. (With G. M. Fair, R. P. Burden, J. C. Morris.) lviii 270, 1944.
- CONANT, H. F.**
Standpipe, Attleboro, Mass. xxix 179, 1915.
- CONARD, WILLIAM R.**
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- CONROY, WATER C.**
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- COOK, BYRON I.**
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Looking backward—a symposium. (With A. W. F. Brown, J. C. Chase, L. M. Hastings, J. S. Maxcy, Dwight Porter, and J. C. Whitney.) xlvii 69, 1932.
Reservoir and dam, Woonsocket, R. I. xii 20, 1897-98.
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- COOK, H. J.**
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- CORLISS, J. M.**
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- COUCH, A. D.**
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- COULTERS, A. B.**
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- COVIL, WILLIAM F.**
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- COWAN, EDWARD H.**
Detection and prevention of water waste, Marion, Ohio. xviii 185, 1904.
- COWLES, M. W.**
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- COX, C. D.**
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- COX, C. R.**
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- CRAFTS, N. HENRY**
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- CRAIG, EARL C.**
Real estate and damage settlements, Scituate, Reservoir, Providence, R. I. xl 503, 1926.
- CRANDALL, FRANK H.**
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- CRILLY, PATRICK F.**
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- CROSBY, EVERETT U.**
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- CROSBY, IRVING B.**
Geology and ground water supplies of New England. xlvii 74, 1933.
Ground water in pre-glacial buried valleys, Mass. liii 372, 1939.
- CROWELL, HERBERT C.**
Joint leakage tests, Haverhill, Mass. xlvii 122, 1933.
- CUDDEBACK, ALLEN W.**
Care and maintenance of meters. xxvii 471, 1913.
- CULYER, THURSTON C.**
Reforestation of Croton watershed, New York, N. Y. xxx 69, 1916.
- CUTTER, VICTOR M.**
New England Regional Planning Commission. xlix 72, 1935.
- DANA, GORHAM**
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- DANFORTH, GEORGE C.**
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- DANIELSON, W. A.**
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- DAPPERT, ANSELMO F.**
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- DARLING, EDWIN**
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- DAVIS, CARLETON E.**
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- DAVIS, F. A. W.**
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- DEAN, F. W.**
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- DEAN, PAYNE**
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- DE CROW, D. A.**
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- DEEVEY, EDWARD S., JR.**
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- DENNETT, R. C.**
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Reliability features of electrically operated pumping stations. (With G. L. Swan) xli 268, 1927.
- DES BAILLETS, CHARLES J.**
McTavish pumping station, Montreal, Que. xliii 32, 1929.
- DEVENDORF, EARL**
Experiences with Public Works Administration—a symposium. (With F. A. Barbour, H. J. Lockwood, A. L. Shaw, W. J. Scott, and Arthur D. Weston.) xlix 35, 1935.
Pollution of the Rochester, N. Y., supply through cross-connections. lv 216, 1941.
Water borne disease in New York State. xlvii 298, 1933.
- DEWING, ARTHUR S.**
Economic advantage of private ownership of water companies. xli 63, 1927.
- DEYOE, D. H.**
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- DICKEMAN, CHARLES T.**
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- DICKERMAN, ALBERT C.**
East Providence Water Company. xliii 239, 1929.
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- DILLON, JAMES J.**
Disaster protection of water supplies, Rhode Island. liii 212, 1939.
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- DITTOE, W. H.**
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- DIVEN, J. M.**
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- DIXON, G. GALE**
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- DOANE, ALFRED O.**
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- DOLE, RICHARD B.**
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- DONALDSON, WELLINGTON**
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- DONNELLY, RICHARD V.**
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- DORE, STANLEY M.**
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Chicopee Valley Aqueduct, Mass. lxiv 13, 1950.
Design and construction of pressure aqueduct for Boston, M.D.C. lv 315, 1941.
- DORNBACH, WILLIAM**
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- DOTEN, LEONARD S.**
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- DOULL, R. M.**
Production of 84" prestressed concrete pressure pipe for Montreal. lxiii 29, 1949.
- DRESSER, HERMAN G.**
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- DROWN, THOMAS M.**
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- DUDLEY, ARTHUR W.**
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- DUTTON, L. F.**
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- EAMES, DAVID D.**
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- EARL, ELLIOTT**
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- EASTER, CHARLES W.**
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- EATON, HARVEY D.**
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- EDDY, HARRISON P.**
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- EDWARDS, GAIL P.**
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- EDWARDS, LE ROY**
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- EGLEE, CHARLES H.**
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- ELDREDGE, E. D.**
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- ELLIS, GEORGE A.**
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- ELLIS, RICHARD H.**
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Hydraulic investigation of a small water works system and main cleaning. liv 155, 1940.

- ELLS, JOSEPH W.**
Copper sulphate for the purification of hard and turbid waters. xix 496, 1906.
- ELLSWORTH, SAMUEL M.**
Federal construction subsidies for small public water supplies. liv 49, 1940.
New Sand Wash Brook Dam and reservoir, Pittsfield, Mass. lii 190, 1938.
- ELWOOD, FREDERICK T.**
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- ENSLOW, L. H.**
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- ESTY, ROGER W.**
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- EWING, CHARLES K.**
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- FAIR, GORDON M.**
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Engineers and engineering in the Mass. State Board of Health. lix 32, 1945.
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Hydraulic investigation of distribution systems in field and office. lv 271, 1941.
Hydraulic service characteristics of small pipes. (With M. C. Whipple and C. Y. Hsiao.) xlv 499, 1930.
Pollution of industrial ground water supply. liii 316, 1939.
The dynamics of water chlorination. (With Shih Lu Chang and J. Carrell Morris.) lxi 285, 1947.
Water disinfecting tablets. (With R. P. Burden, G. H. Conant, J. C. Morris.) lviii 270, 1944.
Storow's treatise on water works 1835. lix 124, 1945.
- FAIRHALL, L. T.**
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- FANNING, JOHN T.**
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- FARNHAM, ELMER E.**
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- FARWELL, C. A.**
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- FAXON, W. L.**
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- FEEMSTER, ROY F.**
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- FELTON, CHARLES R.**
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- FERGUSON, R. E.**
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- FERRIS, JOHN G.**
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- FIELD, FREDERICK E.**
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- FIELD, GEORGE W.**
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- FIELD, H. L.**
Slow sand filtration plant, Greenfield, Mass. li 173, 1937.
- FILBY, E. L.**
Activities of the Committee on Water and Sewage Works Development. lviii 1, 1944.
- FINNERAN, GEORGE H.**
Breaks in water mains, service pipes and hydrants—a symposium. (With F. A. McInnes, S. E. Killam, S. H. Taylor, F. A. Marston, and C. W. Mowry.) xlv 40, 1931.
Cold weather troubles—a symposium. (With P. R. Sanders, W. F. Sullivan, and F. H. Kingsbury.) xlviii 321, 1934.
Emergency gang in water service. xxx 413, 1916.
Leaks and litigation. xli 201, 1927.
Maintenance of gate valves, Boston. xlvii 115, 1933.
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Practical water works matters. xxxiv 272, 1920.
Solid-wedge valve, Boston, Mass. xxx 101, 1916.
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- FISHER, EDWIN A.**
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- FITZGERALD, DESMOND**
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- FITZPATRICK, E.**
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- FLENTJE, M. E.**
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- FLENTJE, MARTIN E.**
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- FLINN, ALFRED D.**
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- FOLWELL, A. PRESCOTT**
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- FORBES, FAYETTE F.**
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- FORBES, HOWARD C.**
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- FOSS, WILLIAM E.**
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- FOSTER, E. H.**
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- FOSTER, JOEL**
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- FOWLER, CHARLES E.**
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- FREEMAN, JOHN R.**
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- FRENCH, A. M.**
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- FRENCH, A. N.**
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- FRENCH, ARTHUR N.**
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- FRENCH, EDWARD V.**
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- FUERTES, E. A.**
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- FULLER, GEORGE W.**
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- FULLER, HARRY U.**
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Sebago Lake intake and conduit, Portland, Me. (With Leonard Metcalf and C. B. Mitchell.) xxxix 394, 1925.
Studies of frost penetration. liv 275, 1940.
Submarine pipe lines, Portland, Me. xxxvii 298, 1923; xlv 479, 1930.
- FULLER, JAMES E.**
Chlorine-ammonia treatment, Amherst, Mass. lviii 89, 1944.
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- FULLER, MYRON L.**
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- FULLER, WESTON E.**
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- FULTON, CREED W.**
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- GAGE, STEPHEN DE M.**
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- GAITENBY, JOHN W.**
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- GALE, JAMES M.**
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- GALLAGHER, DAVID L.**
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- GANZ, ALBERT F.**
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- GARDNER, EDWIN P.**
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- GARDNER, JAMES R.**
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- GARRATT, J. E.**
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- GARRETT, JESSE**
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- GENTNER, WARREN A.**
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- GERHARD, WILLIAM PAUL**
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- GERRISH, WILLIAM B.**
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- GIBBONS, MORTIMER M.**
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- GIBBS, HARRY F.**
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- GIBSON, J. E.**
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- GIBSON, J. S.**
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- GIDLEY, HENRY T.**
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- GIFFORD, FRANK J.**
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- GILCREAS, F. WELLINGTON**
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- GILLET, L. A.**
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- GINDER, CHESTER J.**
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- GLOVER, ALBERT S.**
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- GOFF, M. N.**
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- GOLDSMITH, CLARENCE**
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- GOODALE, LEON A.**
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- GOODMAN, JOSEPH**
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- GOODNOUGH, X. HENRY**
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- GOODRICH, CHARLES C.**
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- GOODRICH, L. W.**
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- GORMAN, ARTHUR E.**
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- GOSS, WILLIAM F. M.**
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- GOULD, JOHN A.**
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- GOURLEY, HAROLD J. F.**
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- GOW, CHARLES R.**
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- GOW, FREDERICK W.**
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- GRAHAM, JAMES W.**
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- GREENE, CHARLES E.**
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- GREENLEAF, A. C.**
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- GRIFFIN, A. E.**
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- GRIFFIN, S. P.**
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- GRIMES, E. L.**
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- GRIMMER, ALLAN K.**
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- GRINDLE, THEODORE W.**
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- GRISWOLD, F. M.**
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- GRISWOLD, H. W.**
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- GUNN, KENNETH E.**
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- GWINN, DOW R.**
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- HAGUE, CHARLES A.**
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- HAINE, WILLIAM**
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- HALE, FRANK E.**
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- HALE, J. ELLIOTT**
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- HALE, RICHARD A.**
Tubercles in iron and steel penstocks. x 244, 1895-96.
Water rights. xxi 248, 1907.
- HALL, D. H.**
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- HALL, FRANK E.**
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- HALL, HARRY R.**
Water disinfection in Maryland. (With R. B. Morse) xxx 301, 1916.
- HALL, HENRY C.**
The War Department Civilian Protection School at Amherst, Mass. lvi 294, 1942.
- HALL, JOHN O.**
Modern plumbing. xv 525, 1900-01.
Municipal management of water-supply systems. xvii 9, 338, 1903.
- HALL, RALPH P.**
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- HALL, RODNEY D.**
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Steam vs. oil. xxxvii 182, 1923.
- HALLIHAN, J. P.**
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- HALPIN, HENRY E.**
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- HAMILTON, H. C.**
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- HAMMATT, E. A. W.**
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- HANCOCK, JOSEPH C.**
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- HANN, VICTOR**
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- HANSEN, PAUL**
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- HARBESON, J. P., JR.**
Diesel engine in a modern forge. xxxix 138, 1925.
- HARDENBERGH, W. A.**
Military field sanitation. lv 431, 1941.
- HARKNESS, BRUCE**
Pipe cleaning and lining, Buenos Aires. liii 284, 1939.
- HARMON, DUDLEY**
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- HARRINGTON, ARTHUR V.**
Special equipment cross-connections. li 270, 1937.
- HARRINGTON, JOHN H.**
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- HARRINGTON, JOHN L.**
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- HASKELL, JOHN C.**
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- HASSAM, WALTER E.**
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- HASTINGS, LEWIS M.**
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Looking backward—a symposium. (With A. W. F. Brown, J. C. Chase, B. I. Cook, J. S. Maxey, Dwight Porter, and J. C. Whitney.) xlvii 70, 1932.
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Vital statistics, Cambridge, Mass. xx 406, 1906.
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- HATCH, HARRY H.**
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- HATHAWAY, ALFRED R.**
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- HATHAWAY, JAMES M.**
Collecting water rates. ii Sept. 68, 1887-88.
- HATTON, T. CHALKLEY**
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- HAUSER, E. A.**
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- HAVILL, H. T.**
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- HAWES, LOUIS E.**
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- HAWES, WILLIAM M.**
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iii 163, 1888-89.
- HAWLEY, RALPH C.**
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- HAWLEY, WILLIAM C.**
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- HAYDEN, JOHN L.**
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- HAYES, F. H.**
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- HAYES, MONTROSE, W.**
Flood producing storms, Atlantic seaboard.
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- HAZEN, ALLEN**
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European water supplies. ix 109, 1894-95.
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Massachusetts water report. xi 44, 1926.
Physical properties of water. xvii 21, 1903.
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Thickness of large pipe lines. xxv 29, 1911.
- HAZEN, H. L.**
Hydraulic analysis of distribution systems
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xlvi 383, 1934.
- HEDGEFETH, L. L.**
Preparing and packing liquid chlorine. lii
1, 1935.
- HEENEY, CORDEN T.**
River crossings. liv 65, 1940.
- HEERMANS, HARRY C.**
Bulletin for water users, Hoquiam Water
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- HEFFERNAN, DAVID A.**
Detecting pipe leakage. xxxii 204, 1918.
Relation of Metropolitan water works to
member communities. xlv 24, 1932.
Reminiscences of a superintendent. xlii 235,
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Service pipe and plumbing appliances.
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Thawing frozen services. xxxii 138, 1918.
Water consumption, Milton, Mass. xxviii
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Water distribution in connection with
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- HENDERSON, LAWRENCE J.**
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- HERING, RUDOLPH**
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- HERLIHY, ELIZABETH M.**
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- HERLIHY, MICHAEL J.**
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- HERSCHEL, CLEMENS**
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- Public works and state boundaries. xli 331,
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- HICKS, ARTHUR**
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- HIGGINS, DANIEL J.**
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- HIGGINS, HERMAN K.**
Water supply and filtration, Panama. xxv
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- HILL, NICHOLAS S., JR.**
Pipe extension charges. xxxv 91, 1921.
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- HILL, WILLIAM R.**
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- HODGMAN, BURT B.**
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- HOLDEN, HORACE G.**
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- HOLLIS, FREDERICK S.**
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- HOLLIS, IRA N.**
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- HOLMES, KENNETH H.**
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- HOLMGREN, RICHARD S.**
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Water conservation in New Hampshire. lvi
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- HOLMQUIST, C. A.**
Control of water supplies, New York State.
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- HOLTON, PHILIP J., JR.**
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- HONNESS, GEORGE C.**
Sanitary improvements of a large water-
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- HOOK, G. S.**
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89, 1906.
- HOOPER, ELMER G.**
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xxix 536, 1915.
- HORNE, H. W.**
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- HORNE, RALPH W.**
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- HORTON, ROBERT E.**
Adjustment of diversion damages by storage compensation. xxii 334, 1908.
Mean precipitation on drainage basin. xxxviii 1, 1924.
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- HORTON, THEODORE**
Supervision of public water supplies by New York State Department of Health. xxxiii 545, 1919.
- HOUGH, LAURENCE C.**
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- HOUSER, G. C.**
Effects of 1929-1930 drought upon water supply, Rockport, Mass. xlv 164, 1931.
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Taste and odor control, Rockport, Mass. xlix 156, 1935.
The evolution of a small system, Rockport, Mass. lvi 335, 1942. (With E. Sherman Chase)
- HOWARD, ARNOLD E.**
Small ground-water supply for state parks. lxii 141, 1948.
- HOWARD, CHARLES D.**
Function, value and significance of water analyses. liii 362, 1939.
Pollution control, New Hampshire. i 334, 1936.
Water supply sanitation in New Hampshire. xxxi 237, 1917.
- HOWARD, JOHN L.**
Fells Reservoir, Metropolitan Water Works, Boston, Mass. xv 20, 1900-01.
- HOWARD, NORMAN J.**
Chlorine studies and taste producing substances. (With R. E. Thompson) xl 276, 1926; xli 59, 1927.
Drifting-sand filtration, Toronto, Ont. xxxiii 504, 1919.
- HOWARD, PAUL F.**
Financing water systems in Mass. lviii 333, 1944.
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Methods and costs of developing ground water supplies, New England. liii 134, 1939.
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Water supplies and iron removal plant, Provincetown, Mass. lvii 63, 1943.
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- HOWE, FREELAND, JR.**
Action of water on pipes. xxii 43, 1908.
- HOWLAND, J. HASTINGS**
Standardization of fire-hose threads. xxxviii 73, 1924.
- HOWLAND, W. E.**
Expansion of Freeman method for solution of pipe flow problems. xlviii 408, 1934.
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- HOWSON, L. R.**
Management of Municipal water works. liv 439, 1940.
- HOXIE, F. J.**
Locating leaks in water mains. xxxvii 807, 1913.
- HSIAO, C. Y.**
Hydraulic service-characteristics of small metallic pipes. (With G. M. Fair and M. C. Whipple.) xlv 499, 1930.
- HULTMAN, EUGENE C.**
Distribution system, Metropolitan water district. lii 151, 1938.
- HUNTER, EDGAR H.**
New Hampshire's approach to post-war problems. lviii 258, 1944.
- HUNTER, H. G.**
Protection of standpipes exposed to extreme low temperatures. liv 73, 1940.
- HUY, H. F.**
Woodland Pumping Station, Western New York Water Co., Buffalo, N. Y. xliii 387, 1929.
- HYDE, CHARLES GILMAN**
Effect of earthquakes on water distribution systems. lvi 14, 1942.
- HYNES, VINCENT M.**
Salt content of wells in Mass. affected by the tidal wave and hurricane of 1938. lvi 355, 1942.
- IANTOSCA, ANGELO**
Flood of 1949 in Western Massachusetts. lxiii 287, 1949.
- JACKSON, DANIEL D.**
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- JACKSON, JAMES F.**
Great ponds as water supplies. iii 203, 1888-89.
- JACKSON, J. FREDERICK**
Enforcement of sanitary laws. xliii 402, 1929.
Stream pollution in Connecticut. xxxi 627, 1917.
Stream pollution affecting industrial uses. xxxvi 14, 1922.
- JACOBS, NATHAN B.**
The water system of Philadelphia with augmented facilities. lxi 151, 1947.
- JACOBSON, SAMUEL**
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Free-residual chlorination at the New Haven Water Co. lx 363, 1946.
- JACOBSON, SAMUEL**
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Pre-chlorination of slow sand filters. lxiii 128, 1949.
- JAHNKE, C. B.**
Diesel engine, overall economy. xxxix 105, 1925.
- JANIN, GEORGE**
Water works, Montreal, Que. xvii 272, 878, 1903.
- JEFFORDS, RUSSELL M.**
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Ground-water conditions at Mashapaug Pond, Providence, R. I. lxii 38, 1948.
- JENNINGS, F. H.**
Improvements in filtration, Watertown, N. Y. xxxix 68, 1925.
- JOHNSON, GEORGE A.**
Copper sulphate treatment of sewage. xix 506, 1905.
Rapid sand filtration, Cambridge, Mass. xxxvii 339, 1923.
Rapid sand filtration. xxxi 390, 1917.
- JOHNSON, F. P.**
Basin and well covering, Waltham, Mass. viii 120, 1893-94.

- JOHNSON, R. F.**
Underground records. xxxvi 95, 1922.
- JOHNSON, ROBERT P.**
Operating experiences, Salem and Beverly filtration plant. li 185, 1937.
- JOHNSON, W. E.**
Water works, Hartford, Conn. xxxi 575, 1917.
- JOHNSON, WILLIAM S.**
Effect of meters on water consumption. xxi 109, 1907.
Ground-waters as sources of supply. xxiii 401, 1909.
Municipal water-works financing in Massachusetts. (With C. W. Sherman and H. A. Symonds.) xxx 279, 1916.
Small water works systems. xxviii 144, 1914.
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- JONES, E. A.**
Frost protection of pipes. iii 125, 1888-89.
- JONES, EVERETT M.**
Measurement of sand expansion. (With H. J. Krum.) lii 107, 1938.
- JONES, H. SEAVER**
Reconditioning large water mains. liii 293, 1939.
- JORDAN, FRANK C.**
Rate of income for domestic service by different classes of residential property. xxiv 592, 1910.
- JORDAN, HARRY E.**
Water works operations under emergency conditions. lv 516, 1941.
- KARALEKAS, PETER C.**
Additions to Springfield's transmission mains. lx 332, 1946.
- KEITH, SCOTT**
Analysis of flow in pipe networks by method of balancing flows. (With Clarence E. Carter.) lix 273, 1945.
Hydrant flow and pipe-condition tests. lx 68, 1946.
Seismic reconnaissance for ground water. (With Daniel Linehan.) lxii 76, 1949.
- KELLOGG, ROYAL S.**
Forest conservation. xxii 389, 1908.
- KEMBLE, F. T.**
Cooperation of water works operators with the public and employees. xxxvi 363, 1922.
- KENDALL, RAYMOND E.**
Forest fire hazards. lxii 160, 1948.
- KENNEDY, ALLEN S.**
The algal environment in relation to fish. lxii 196, 1948.
- KENNEDY, JOHN B.**
Water rates. lxi 202, 1947.
- KENNISON, KARL R.**
Boston metropolitan water supply extension. xlviii 147, 1934.
Charges to municipalities in the Boston Metropolitan area by M.D.C. lv 522, 1941.
Decolorization by storage. xliii 60, 1929.
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Metropolitan Water District financing and costs. lx 162, 1946.
- KENNY, W. R.**
Chlorine determination by ortho-toldin. (With F. R. McCrumb.) xlii 410, 1928.
- KIERAN, PATRICK**
Water tank, Fall River. ii Sept. 26, 1887-88.
- KIERSTED, WYNKOOP**
Water supply development for small cities. v 83, 1890-91.
- KILLAM, ELSON T.**
Pipe linings and friction coefficients. xlvii 283, 1933.
- KILLAM, SAMUEL E.**
Breaks in water mains. xxxi 268, 1917.
Breaks in water mains, service pipes, and hydrants—a symposium. (With F. A. McInnes, S. H. Taylor, F. A. Marston, C. W. Mowry, and G. H. Finneran.) xiv 28, 1931.
Control of tastes and odors due to microscopic organisms, Spot Pond Reservoir, Boston. xli 241, 1932.
Disappearance of cast iron pipe coating during storage. xxxv 367, 1921.
Gate valves specifications. 1916 and 1938. liii 358, 1939.
Meterage results, Metropolitan Water Supply, Boston, Mass. xxxi 495, 1917.
- KIMBALL, FRANK C.**
Testing 6 inch meters. xvii 305, 1903.
Water emergency and water supply, Worcester, Mass. xxvi 113, 1912.
- KIMBALL, GEORGE A.**
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- KIMBALL, RICHARD**
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- KING, ARTHUR C.**
Municipal water charges to industrial users. lvi 133, 1942.
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Water-works practice, Taunton, Mass. xlviii 66, 1934.
- KING, GEORGE A.**
Direct pumping, Taunton, Mass. xix 21, 1905.
Merging water department with other municipal departments. xxxvi 434, 612, 1922.
Survey of water-works activities in 1910. (Presidential address) xxv 161, 1911.
- KINGSBURY, FRANCIS H.**
Chlorinating new water mains. (With G. O. Adams.) li 60, 1937.
Cold weather troubles—Symposium (With P. R. Sanders, G. H. Finneran, and W. F. Sullivan.) xlviii 330, 1934.
Effect of the 1944 hurricane on Mass. water supplies. lix 13, 1945.
Ground water supplies, Massachusetts. i 149, 1936.
Salt water pollution of the Gloucester, Mass., distribution system. lv 230, 1941.
Surface water supplies, Massachusetts. liii 1, 1939.
Variability in normal chloride content of surface and ground water supplies in Mass. (With Edward W. Smith) lvii 10, 1943.
- KINGSLEY, CHESTER W.**
Construction and maintenance of water works. iii 127, 1888-89.
- KINNICUTT, LEONARD P.**
Sewage treatment by bacterial methods. xv 119, 1900-01.
- KINNISON, H. B.**
Drought in New England, 1929-1930. xlv 145, 1931.
- KITSON, S. W.**
One hundred years of pumping machinery. liv 103, 1940.
- KITTREDGE, ROLAND F.**
Rapid sand-filtration plant, Willimantic, Conn. liii 328, 1939.

- KITTREDGE, WALTER W.**
Purification works, Providence, R. I. xl
522, 1926.
- KNAPP, LOUIS H.**
Water works, Buffalo, N. Y. xiv 206, 1899-1900.
- KNIGHT, CHARLES W.**
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- KNOWLES, MORRIS**
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Filter operations, Lawrence, Mass. (With M. F. Collins and A. D. Marble.) xxii
193, 1908.
State regulation of public utilities. xxvi
272, 1912.
Water ejector for sand transportation. (With J. M. Rice) xxv 83, 1911.
Water supply investigations and construction, Lawrence, Mass. (With M. Mansfield and P. Nugent.) xxxix 345, 1925.
- KNOX, CHARLES E.**
Drought runoff in New England. lxiii 221, 1949.
- KNOX, JOSEPH C.**
Disaster protection of water supplies, Mass., 1938. liii 216, 1939.
- KNUDSON, ADOLPHUS A.**
Electrolysis. xv 244, 1900-01.
Lead covered cables, a cause of electrolysis. xxiii 164, 1909.
- KOEHLER, OSCAR E.**
Thread gage design and threading problems. lii 331, 1938.
- KONZ, ALBERT B.**
Proceedings of the Air Raid Precaution School, When the bombs fall. lvii 116, 1943.
- KRAEMER, HENRY**
Metallic copper for the purification of drinking water. xix 487, 1905.
- KREBS, ADOLF**
Replacing castings and forgings by steel elements cut to shape by automatic machines. xlii 36, 1928.
- KRÖHNKE, B.**
Sterilization of surface water by chemical methods. xix 551, 1905.
- KRUM, H. J.**
Measurement of sand expansion. (With E. M. Jones) lii 107, 1938.
- KUICHLING, EMIL**
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- LAASE, WILLIAM F.**
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- LABOON, JOHN F.**
Filter plant, Wheeling, W. Va. xxxix 291, 1925.
- LALLY, THOMAS E.**
Inspection of equipment. xxxvi 450, 613, 1922.
Gates and hydrants. xlix 395, 1935.
Small gate or valve in larger pipe lines. xxxiv 302, 1920.
- LAMMERS, FRANKLYN J.**
Accelerated clarification. liv 447, 1940.
- LANE, M.**
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- LANEY, C. C.**
Rochester parks. xxiv 485, 1910.
- LANHAM, PAUL**
Water waste prevention surveys. xxxiii 287, 1919.
- LARNED, EDWARD S.**
Swamp drainage. xvi 36, 1902.
Testing and use of Portland and natural cements. xxi 1, 1907.
- LEARNED, WILBUR F.**
Ashland basin No. 4 and the mixing and handling of concrete, Boston, Mass. ii Dec. 3, 1887-88.
- LEAVITT, ERASMUS D.**
Pumping engines. ix 163, 1894-95.
- LeBOSQUET, M., JR.**
Cooling water benefits from increased river flows. lx 111, 1946.
- LeBOSQUET, MAURICE, JR.**
Loss of head in rapid sand filters. (With R. G. Tyler and W. A. Danielson.) xl 322, 1926.
- LEDoux, J. W.**
Air in gravity mains. xxxv 31, 1921.
Water supply mains. xxxv 354, 1921.
- LeFEBVRE, F. J.**
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Effect of cathodic protection on rust-tubercle pH. lxiv 309, 1950.
- LEIGHTON, MARSHALL O.**
Conservation of water resources. xxii 381, 1908.
Engineering construction by the U. S. Reclamation Service. xx 127, 1906.
Governmental regulation of water powers. xxiv 259, 1910.
- LESAGE, THOMAS W.**
Service boxes, Montreal, Que. xvii 284, 1903.
- LETTON, HARRY P.**
Double municipal supplies. (With W. T. Sedgwick) xxv 440, 1911.
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- LEVINE, AARON**
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Determination of zinc in water, sewage and industrial wastes with di-beta-naphthylthio carbazone. lxi 267, 1947.
- LEVY, ERNEST C.**
Kennebec Valley typhoid epidemic 1902-1903. (With G. C. Whipple) xix 163, 1905.
- LINBERG, ANDREW C.**
Design and construction of preload tanks and domes. lvi 230, 1942.
- LINDERMAN, S. E.**
Improvement in centrifugal castings process. (With H. W. Stuart) xlviii 423, 1934.
Tuberculation of mains as affected by bacteria. (With H. G. Reddick) xlvi 146, 1932.
- LINEHAN, DANIEL AND SCOTT KEITH**
Seismic reconnaissance of ground water. lxiii 76, 1949.
- LITTLE, BEEKMAN C.**
Water works, Rochester, N. Y. xxiv 485, 1910.
- LOCHRIDGE, ELBERT E.**
Intermittent application of coagulant, Springfield, Mass. xxxi 48, 1917.
Water works, Springfield, Mass. xxi 279, 1907; xli 323, 1932.
- LOCKE, AUGUSTUS W.**
Water in Holland 1887. v 44, 1890-91.
- LOCKE, WILLIAM W.**
Sanitary inspection, Metropolitan water Works, Boston, Mass. xv 483, 1900-01.

- LOCKWOOD, HAROLD J.**
Experiences with Public Works Administration—a symposium. (With F. A. Barbour, A. C. Shaw, W. J. Scott, Earl Devendorf, and A. D. Weston.) xlix 23, 1935.
- LONGLEY, FRANCIS F.**
Coolgardie pipe line, Australia, and correction of its corrosion. xxxix 421, 1925;
Lock joint pipe line, New Bedford, Mass. xlix 212, 1935.
Prestressed reinforced concrete pipe. lix 335, 1945.
Reinforced concrete pressure pipe. xxxviii 257, 1924.
Water supplies, American Expeditionary Forces. xxxiii 465, 1919.
Water supply, Salem-Beverly, Mass. xxx 35, 1916.
Water supply in time of war. liv 355, 1940.
Water supply in time of war. (Discussion) lv 115, 1941.
- LOONEY, EDWARD J.**
Explosion of hot water boiler, Belmont, Mass. xxxiv 200, 1920.
- LORETZ, ARTHUR J. L.**
Pumping engines. xi 226, 1896-97.
- LOUGHLIN, JOSEPH M.**
Address by the Regional Director of Civilian Defense. lviii 83, 1943.
Proceedings of the air raid precautions school.
- LOVEJOY, CARL H.**
Flood-control structures; Part II, Construction. lxii 70, 1948.
- LUCEY, P. J.**
Rainfall and stream flow, Holyoke, Mass. xxxiv 323, 1920.
- LUCKE, CHARLES E.**
Diesel oil engine for water works service. xxxvii 145, 1923.
- LUMBERT, WILLIAM J.**
Butt-welded steel standpipe, Scituate, Mass. liii 144, 1939.
Transite for wells and screens. li 310, 1937.
- MacKENZIE, SAMUEL H.**
Construction layouts and location of gates. xli 143, 1932.
Size of mains and services. li 108, 1937.
Size of meters for services. li 367, 1937.
- MacMAHON, J. D.**
(With John F. Synan and G. P. Vincent.) Chlorine dioxide—a new development in the treatment of water. lviii 264, 1944.
Chlorination for special and emergency purposes. xli 121, 1932.
- MADIGAN, JOHN T.**
Proceedings of the air raid precaution school. The F.B.I. war investigative jurisdiction. lvii 163, 1943.
- MAIN, CHARLES T.**
Fuel situation in New England. xxxii 231, 1918.
Pumping engine, Waltham, Mass. (With F. W. Dean) xiv 171, 1899-1900.
Values of water powers and damages by diversion. xxi 214, 1907.
- MALLMANN, W. L.**
Bacteriological detection of health hazards in water supplies. lv 363, 1941.
- MALLORY, F. B.**
Poisonous effects of copper. xli 27, 1927.
- MANDELL, HOWARD C.**
Post-war plans for the water system of New Bedford, Mass. lviii 7, 1944.
- MANSFIELD, MYRON G.**
Sand embankment dam, Chicopee, Mass. xli 244, 1927.
Water supply investigations and construction, Lawrence, Mass. (With M. Knowles and P. Nugent.) xxxix 345, 1925.
- MARBLE, ARTHUR D.**
Filter operations, Lawrence, Mass. (With M. Knowles and M. F. Collins.) xxii 193, 1908.
- MARSH, CLARENCE W.**
Making chlorine at point of consumption. xxxvi 1, 1922.
- MARSH, FRANCIS B.**
Scituate Dam, Providence, R. I. xl 477, 1926.
- MARSTON, FRANK A.**
Breaks in water mains, service pipes and hydrants—a symposium. (With F. A. McInnes, S. E. Killam, S. H. Taylor, C. W. Mowry, and G. H. Finneran.) xlv 35, 1931.
High service water supply, Concord, N. H. (With P. R. Sanders) xlvii 1, 1933.
Hydrant connections for fire engines. xxxvii 369, 1923.
Salem and Beverly treatment plant. (With J. W. Raymond, Jr.) l 111, 1936.
Sanitation of construction areas on the Delaware aqueduct. lv 166, 1941.
Standpipe, Gloversville, N. Y. xxxvi 288, 1922.
Transite pipe river crossing, Scituate, Mass. li 299, 1937.
Water works operating expenses under post-war conditions. lxiv 119, 1950.
- MASON, WILLIAM P.**
Copper sulphate as a disinfectant. xix 481, 1905.
Drinking water and disease. vi 139, 1891-92.
Explosion of septic tank, Saratoga, N. Y. xxi 23, 181, 1907.
Intensity of typhoid and character of water carriage. xix 412, 1905.
Swimming pools. xxxiii 458, 1919.
Typhoid epidemic, Maidstone, England. xxiv 299, 1910.
- MATERA, JAMES J.**
One hundred years of public water supply for Boston. lxiii 150, 1949.
- MATTHEWS, NATHAN**
Why municipal water works are not self supporting. ix 1, 1894-95.
- MAXCY, JOSIAH S.**
Looking backward—a symposium. (With A. W. F. Brown, J. C. Chase, B. I. Cook, L. M. Hastings, Dwight Porter, and J. C. Whitney.) xlv 72, 1932.
- MAZZUR, FRANK A.**
Pumping equipment for economy. xxxvii 242, 1923.
- McCARTHY, JOSEPH A.**
Bromine and chlorine dioxide as water disinfectants. lviii 55, 1944.
Chlorine dioxide for the treatment of water supplies. lix 252, 1945.
Instruction in water bacteriology at the Mass. Decontamination School. lvi 288, 1942.
Viability of bacteria in presence of phosphates. (With W. E. Cassidy) lvii 287, 1943.
- McCLINTOCK, W. E.**
Water pipe trenches vs. good roads. viii 71, 1893-94.

- McCOY, BYRON O.**
Power in New England. lxiii 250, 1949.
- McCRUMB, F. R.**
Chlorine determination by ortho-tolidin. xli 386, 1927; (With W. R. Kenney) xlii 410, 1928.
- McCUNE, C. A.**
Metallurgy of welding wire. xlii 33, 1928.
- McCURDY, H. S. R.**
Anthracite filters. li 37, 1937.
Hydraulic fill dams, Miami Conservancy District, O. xxxiii 389, 1919.
- McDOWELL, EDWIN T.**
Corrosion control at Biddeford, Maine. liv 288, 1940.
Operation of new filter plant, Biddeford, Me. liii 158, 1939.
Operating expenses under post-war conditions. lxiv 131, 1950.
- McINNES, FRANK A.**
Boston water supply. xlii 8, 1932.
Breaks of water mains, service pipes and hydrants—a symposium. (With S. E. Killam, S. H. Taylor, F. A. Marston, C. W. Mowry, and G. H. Finneran.) xlv 23, 1931.
High pressure fire system, Boston, Mass. xxxvi 483, 1922.
Salem fire. (With Clarence Goldsmith) xxix 94, 1915.
Salt water fire system, Boston, Mass. xiii 304, 1898-99.
Thawing frozen service pipes by electricity. xviii 214, 1904.
Waste restriction, Boston, Mass. xxxv 34, 1921.
- McKENNA, JAMES A.**
Pumping stations, Providence, R. I. xl 466, 1926.
- McKENZIE, THOMAS**
Standpipe, Westerly, R. I. xxix 169, 1915.
- McKIBBEN, FRANK P.**
State supervision of dams and reservoirs. xxvi 242, 1912.
- McMURRAY, JAMES A.**
Metering, Boston, Mass. xxix 73, 1915.
Meter setting and maintenance. xxxvii 44, 1923.
- McWANE, J. R.**
Cast iron service pipe. xxxviii 79, 1924.
Manufacture and use of small cast iron pipe. xlii 495, 1930.
- MELLEY, WILLIAM F.**
Financing water mains. lvi 136, 1942.
- MENDELL, JAMES H.**
Pumping equipment, Manchester, N. H. xxxii 169, 1918.
- MERIAM, R. S.**
Public works and business stabilization. xviii 441, 1934.
- MERRILL, FRANK E.**
Grounding electric light wires on water pipes. xxiii 180, 1909.
Public watering stations. xxviii 357, 1914.
- MERRILL, GEORGE F.**
Booster pump for gravity supply. xxxvii 190, 1923.
Floods and hurricane at Ware, Mass. liv 186, 1940.
Water works, Greenfield, Mass. xxix 149, 1915.
- MERRIAM, THADDEUS**
Law of interstate waters and its application to the Delaware River. xlv 199, 1931.
- MERRITHEW, EARNEST A.**
Payment for relocation of water mains. lii 60, 1938.
- MESERVE, D. R.**
Organic coatings in water works maintenance. ix 227, 1946.
- METCALF, LEONARD**
Control of public utility companies by public service commissions. (Presidential address.) xxx 160, 1916.
Depreciation. xxiv 442, 1910.
Distributing reservoir, Dayton, O. (With W. T. Barnes) xxxiii 219, 1919.
Echo Lake Dam, Milford, Mass. xvii 146, 1903.
Groined arch roofs. xvii 398, 1903.
Sebago Lake intake and conduit, Portland, Me. (With H. U. Fuller and C. B. Mitchell.) xxxix 394, 1925.
Wrought iron cement lined pipe. xxiii 1, 1909.
- MEYER, ALVIN F.**
Sanitary engineering in the occupied zone of Germany. lxiii 277, 1949.
- MEYERHERM, C. F.**
Electrolysis investigations. xliii 143, 1929.
- MIDDLETON, R. E.**
Making watershed areas and sanitary districts coterminous. xiii 119, 1898-99.
- MILLER, EDWARD F.**
Waste heat engines. xvii 44, 1903.
- MILLER, HIRAM A.**
Additional water supply, Pittsfield, Mass. xxvii 337, 1913.
- MILLER, JOHN P.**
Reforestation of North Adams watersheds. xlviii 272, 1934.
- MILLIGAN, ROBERT E.**
Mechanical filtration plant, Newport, R. I. xxv 60, 1911.
- MILLS, HIRAM F.**
Control of inland waters by Mass. State Board of Health. i Mar. 6, 1886-87.
Filter, Lawrence, Mass. ix 44, 1894-95.
Typhoid fever and water supplies. v 149, 1890-91.
- MINKUS, ALEXANDER J.**
Operation of the slow sand filter, Hartford, Conn. lxii 242, 1948.
- MINOR, EDWARD E.**
Distribution system problems, New Haven, Conn. i 274, 1886.
- MITCHELL, CHARLES B.**
Sebago Lake intake and conduit, Portland, Me. (With H. U. Fuller and Leonard Metcalf.) xxxix 394, 1925.
- MITCHELL, J.**
Spun bituminous pipe coating in Great Britain. li 390, 1937.
- MITCHELL, R. W.**
Concrete pipe. xliii 18, 1929.
- MITCHELL, ROBERT D.**
Experimental treatment of Rancocas Creek water for Fort Dix, N. Y. lvi 76, 1942.
- MOAT, CHARLES P.**
Quality of public water supplies of Vermont. xv 514, 1900-01; xxxvii 291, 1923.
- MOLDENKE, RICHARD**
Engineering aspects of cast iron. xxxvii 1, 1923.
- MOODY, HERBERT A.**
Hydro-electric power development at Cobble Mountain, Springfield water supply. xlii 356, 1932.
- MOODY, WILLIAM H.**
Results of universal metering, Naugatuck Water Co. lxii 202, 1948.
- MOORE, EDWARD W.**
Chemical dosages for corrosion prevention. lii 311, 1938; erratum, lii 466, 1938.

- Corrosion of brass in water. xlviii 47, 1934.
Corrosion control. lv 265, 1941.
Studies in the removal of iron and manganese. (With E. A. Snow, Jr.) lvi 320, 1942.
- MOORE, GEORGE T.**
Copper sulphate as an algicide. xix 474, 1905.
- MOORE, JOHN J.**
Raising water rates to offset increased costs. xxxii 248, 1918.
- MOORE, LEWIS E.**
Guarding public water supplies. lvi 265, 1942.
- MORAN, JOHN W.**
Water works, Gloucester, Mass. xxv 381, 1911.
- MOREHOUSE, W. W.**
Ground water supply, Dayton, O. li 219, 1937.
- MORRILL, LABAN**
Development of Stoughton's water collecting system. lv 206, 1941.
- MORRIS, J. CARREL**
Contamination of water supplies by radioactive substances. (With Jeanne B. Carritt) lxii 1, 1948.
The dynamics of water chlorination. (With Gordon M. Fair and Shih Lu Chang.) lxi 285, 1947.
Water disinfecting tablets. (With G. M. Fair, G. H. Conant and R. P. Burden.) lviii 270, 1944.
- MORSE, C. H.**
Electrolysis. vii 139, 1892-93.
- MORSE, ROBERT B.**
Water disinfection in Maryland. (With H. R. Hall) xxx 301, 1916.
- MOSTELLER, W. P.**
Selling from the manufacturer's and purchaser's viewpoints. xxxviii 287, 1924.
- MOULTON, DAVID E.**
Laws governing water utilities. lviii 203, 1944.
Organization of Portland Water District, Portland, Me. xliii 359, 1929.
Recreation facilities near water supplies. li 370, 1937.
Water supply, Portland, Me. xxxi 199, 1917.
- MOWRY, CHARLES W.**
Breaks in water mains, service pipes, and hydrants—a symposium. (With F. A. McInnes, S. E. Killam, S. H. Taylor, F. A. Marston, and G. H. Finneran.) xlv 39, 1931.
Cross-connection regulations. xlix 66, 1935.
Fighting fires beforehand. xli 413, 1927.
Inspection and maintenance of gate valves. xlvii 111, 1933.
Water consumption during fires. xlvi 93, 1932.
- MULHALL, JOHN F. J.**
Water works accounting. xix 395, 1905.
- MUNROE, JAMES E.**
The construction of water works structures. lxi 160, 1947.
- MURDOCK, JOHN H., JR.**
Recent labor legislation and public utility operations. lxiii 14, 1949.
- MURDOCH, WILLIAM**
Cleaning water mains, St. John, N. B. xiii 147, 333, 1898-99.
Wooden joints in cast iron mains. xv 34, 1900-01.
- MURRAY, ALBEUS P.**
Reading meters, billing, and collecting revenue, Providence, R. I. xl 457, 1926.
- MYERS, C. J.**
Wood stave conduit, Atlantic City. xviii 387, 1904.
- MYOTT, E. B.**
Construction of Granville Dam, Westfield, Mass. xliii 175, 1929.
- NEBOLSINE, ROSS**
New trends in ground water development. lvii 186, 1943.
- NELSON, FRED B.**
Distribution problems. xliii 133, 1929.
Testing meters. xxix 539, 1915.
- NEVONS, HIRAM S.**
Experience with a 30 inch gate. iv 212, 1889-90.
- NEWCOMB, CHARLES L.**
Hydrant experiments. xxi 378, 1907.
- NEWELL, I. LAIRD**
Red water—causes and elimination lvi 166, 1942.
- NEWLANDS, JAMES A.**
New filtration plant, Bristol, Conn. lii 324, 1938.
- NEWSOM, REEVES J.**
Economy of service pipe installation. xxxvi 79, 1922.
Group management of water companies. xlvii 337, 1933.
Length of service of water works facilities. lv 463, 1941.
Modernizing an established water works system, Lynn, Mass. xxxiv 139, 1920.
Office methods and regulations. xxxiv 264, 1920.
Pumping station design and operation. xxxv 46, 1921.
- NICHOLS, PHILIPS**
Law governing the taking of private property. xxxviii 327, 1924.
- NIELSON, D. M.**
Development in electronic instrumentation. lix 265, 1945.
- NILES, WILLIAM H.**
Secular and local variations of weather and climate affecting water supply. v 74, 1890-91.
- NOLAN, S. FRANK**
Distribution and maintenance, Providence, R. I. xl 460, 1926.
- NOLTE, AUGUST G.**
Covering service-reservoirs for filtered or ground water. (With G. C. Bunker) xxxvii 261, 1923.
- NORTHROP, FRANK L.**
Water filter, Milford, Mass. x 262, 1895-96.
- NOYES, ALBERT F.**
Driven wells. i June 19, 1886-87.
Excavating in quicksand. iv 218, 1889-90.
Metropolitan water supply of Massachusetts. x 117, 1895-96.
Water hammer in house plumbing. 62, Trans. 1885.
Weight of cast iron pipe. 28, 154, Trans. 1885.
- NUGENT, PATRICK**
Water supply investigations and construction, Lawrence, Mass. (With M. Knowles and M. G. Mansfield.) xxxix 345, 1925.
- NYE, JOSEPH K.**
Water works, Fairhaven, Mass. viii 175, 1893-94.
- OAKMAN, ROGER G.**
Diesel engine operation, Needham, Mass. liii 152, 1939.

- Laying lined and wrapped steel pipe, Needham, Mass. liii 271, 1939.
Studies of the Needham, Mass., distribution system. lix 1, 1945.
- OLMSTED, FREDERICK L.**
Landscape problems of Spot Pond Reservoir, Boston, Mass. xv 272, 1900-01.
- ORCHARD, WILLIAM J.**
Chlorination of New England water supplies. xxxvi 99, 1922.
- OTIS, JOHN C.**
Water works, Poughkeepsie, N. Y. xxiii 283, 1909.
- PALMER, MARSHALL B.**
Water supply, Syracuse, N. Y. xxxviii 226, 1924.
- PARKER, F. H.**
High service motor, Burlington, Vt. ii Sept. 63, 1887-88.
- PARKER, HORATIO N.**
Chlamydomonas in Spot Pond, Boston, Mass. (With F. S. Hollis) xiv 26, 1899-1900.
- PARKER, WALTER**
New developments in fluid meters. lii 248, 1938.
- PARKER, WILLIAM S.**
Public works programming and the post-emergency problem. lvi 192, 1942.
- PARKINSON, ROYAL**
Policy choices in employer-employee relations. lxi 88, 1947.
- PARRISH, EDWARD**
Atlantic intra-coastal waterways. xxv 285, 1911.
- PEASE, HERBERT D.**
Flies and disease. xxv 17, 1911.
Water supplies and Health Department of New York State. xxiii 90, 1909.
- PECK, ERMON M.**
Meters and water consumption, Hartford, Conn. xxii 282, 1908.
- PELLETIER, JOSEPH C.**
Civil service and the water department. xxiii 209-355, 1909.
- PERRY, FRED G.**
Recording pressure-gages. x 255, 1895-96.
- PHILLIPS, VICTOR B.**
Electrolysis on steel force-main, Akron, O. xxxvi 170, 1922.
- PIERCE, JOHN F.**
Water works in Cuba. xlvii 184, 1932.
- PIRNIE, MALCOLM**
Aeration in water purification. xliii 395, 1929.
Iron and iron coagulants. li 437, 1937.
Supplying less corrosive soft water. xlix 419, 1935.
- PITCHER, FRANK H.**
Pumping by electricity, Montreal, Que. xvii 349, 1903.
- POLLITT, WILLIAM C.**
Watershed and forestation work, Bridgeport Water Company. xlvii 223, 1933.
- POOL, CHARLES L.**
Ammonia-chlorine treatment, East Providence, R. I. (With J. V. Turner) xlvii 13, 1933.
Improvements in Rhode Island water supplies. (With J. J. Dillon) l 143, 1936.
Sanitation in New Hampshire. xxxviii 122, 1924.
- POPE, SAMUEL J.**
Cooperation of fire and water departments in emergencies. lv 458, 1941.
- PORTER, DWIGHT**
Hydraulic laboratory, Massachusetts Institute of Technology. viii 81, 1893-94.
Looking backward—a symposium. (With A. W. F. Brown, J. C. Chase, B. I. Cook, L. M. Hastings, J. S. Maxcy, and J. C. Whitney) lxvi 75, 1932.
- PORTER, HOLBROOK, F. J.**
Steel forgings for pumping engines. xii 120, 1897-98.
- POTTER, ALEXANDER**
Economy of circular reinforced concrete reservoir construction. xxvi 138, 1912.
- POTTER, HOWARD H.**
Proceedings of the Air Raid Precaution School, Effects of war gases on water supplies. lvii 136, 1943.
Proceedings of the Air Raid Precautions School, Objectives of the school. lvii 81, 1943.
- POWELL, S. T.**
Ozone as a sterilizing agent. xxix 87, 1915.
Water treatment for industries and boilers. lii 418, 1938.
- PRATT, ARTHUR H.**
Core wall, Wanaque Dam, N. J. xxxvi 457, 1922.
Wanaque water works project. xlv 386, 1930.
- PRATT, GILBERT H.**
Chlorine control apparatus for sterilization of water supplies. xxxviii 63, 1924.
Uses and abuses of water filtration. xxvi 341, 1912.
- PRIDE, EDWIN L.**
Water works accounting. xxxi 63, 1917.
- PROVOST, ANDREW J., JR.**
Protection of New York's water supply from pollution during construction work. xxv 301, 1911.
- PURDY, J. H.**
Fire protection for factories. xviii 193, 1904.
- RANDLETTE, J. W.**
Painting fire hydrants to indicate capacity. lii 85, 1938.
- RANE, FRANK W.**
Reforestation of watersheds. xxv 234, 1911.
- RANKIN, R. S.**
Mechanical conditioning of treated waters. xlv 380, 1932.
- RAY, T. B.**
Mystic Valley Conn. filtration plant. (With W. H. Chase) l 325, 1936.
- RAYMOND, JOHN W., JR.**
Salem and Beverly treatment plant. (With F. A. Marston) l 111, 1936.
- RAYMOND, WILLIAM G.**
Damages to mill powers, Troy, N. Y. xiii 152, 1898-99.
Power capacity of a stream without storage. xxii 184, 1908.
- READ, J. H.**
Electrical equipment. xlvii 131, 1933.
Manchester, N. H., water works. xlviii 275, 1934.
- RECKLINGHAUSEN, MAX VON**
Ultra-violet rays for water purification. xxix 202, 1915.
- REDDICK, H. G.**
Tuberculation of mains as affected by bacteria. (With S. E. Linderman) xlv 146, 1932.
- REED, CLARENCE H.**
The character of Quabbin Reservoir water during reservoir filling. lxi 181, 1947.

- REEKIE, DUDLEY A.**
Proceedings of the Air Raid Precaution School, Organization of civilian defense. lvii 91, 1943.
- REID, WILLIAM A.**
Clearing and grubbing Scituate Reservoir, Providence, R. I. xi 499, 1926.
- RENY, J. F.**
Annuities for public service employees. lviii 236, 1944.
The story of P.W.A. in Maine water works. liv 282, 1940.
War time problems in the Portland water district. lvi 309, 1942.
- REYNOLDS, HARRIS A.**
Work of the N. E. Forestry Foundation on watersheds. lxii 133, 1948.
- REYNOLDS, IRVING H.**
Pumping engine practice of the Edward P. Allis Co. xiii 172, 1898-99.
- REYNOLDS, JOEL W.**
Diesel drive for water works pumping stations. lv 196, 1941.
- RICE, JOHN M.**
Water ejector for transporting sand. (With M. Knowles) xxv 83, 1911.
- RICE, L. FREDERICK**
Test of water meters, Boston, Mass. iii 67, 120, 1888-89.
- RICE, OWEN**
The use of hexametaphosphate in water treatment. lvi 84, 1942.
Sodium hexametaphosphate as an aid in control of corrosion. liv 25, 1940.
- RICH, A. B.**
Experience with transite pipe. li 289, 1937.
- RICH, GEORGE R.**
Power generation from the Delaware project. lxiv 323, 1950.
- RICHARDS, GRAGG**
Rainfall of Northern New England. xlii 431, 1928; xliii 50, 1929; xliv 74, 100, 1930.
- RICHARDS, HENRY**
Slow sand filter, Gardiner, Me. xxxi 216, 1917.
- RICHARDS, WALTER H.**
Accident on tile conduit. iii 164, 1888-89.
Efficiency in water works management. xxv 407, 1911.
High service system, New London, Conn. vii 148, 1892-93.
Laying 20 inch main, New London, Conn. iv 178, 1889-90.
Meter rates. xxii 289, 1908.
Storage reservoir construction, New London, Conn. xviii 67, 1904.
Service pipe. 40, Trans. 1884.
- RICHARDSON, CHARLES G.**
Parshall measuring flume at Providence, R. I. xlviii 1, 1934.
- RIDGWAY, ROBERT**
Hudson River crossing, Catskill Aqueduct, N. Y. xxv 317, 1911.
- RIORDAN, JOHN E.**
Construction of Norwalk Lake dam. ix 256, 1946.
- RISERDGER, C. A.**
The design and construction of Perry Bar service reservoir, Birmingham, England. lxiii 325, 1949.
- ROADS, GEORGE M., JR.**
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Flow tests on 30 inch steel pipe lined with bitumastic enamel in 1932. lvi 8, 1942.
- ROBERTSON, R. A.**
Venturi meter. vii 32, 1892-93.
- ROBIE, KENNETH W.**
Distribution-pipe problems. lxii 122, 1948.
- ROCKWELL, WILLARD F.**
The place of public works construction in post-war planning. lix 22, 1945.
- RODGERS, LYNDON T.**
Hurricanes, with special emphasis on the New England hurricanes of 1938 and 1944. lix 9, 1945.
- ROGERS, EDWIN H.**
Sub-surface collecting system and water quality, Newton, Mass. xxxvii 312, 1923.
- ROGERS, HENRY W.**
Filtration of water. 54, Trans. 1884.
Water works, Lawrence, Mass. i Dec. 6, 1886-87.
- ROGERS, SHERMAN L.**
Methods of cutting cast iron pipe. lxii 238, 1948.
Maintenance of water works equipment. liii 345, 1939.
- ROSA, EDWARD B.**
Electrolysis and its mitigation. xxix 49, 1915.
- ROSS, ALBERT A.**
Freezing and thawing of water mains and services. xlix 176, 1935.
Water waste surveys, Lexington, Mass. xlviii 72, 1934.
- ROULLIER, G. A.**
Water meters. v 56, 1890-91.
- RUBIN, LAZARUS**
Chemical contamination of water supplies. lvi 276, 1942.
Determination of zinc in water, sewage and industrial wastes by di-seta-naphthylthio carbazono. (With Aaron Levine) lxi 267, 1947.
Recent developments in the chemical treatment of water supplies. lxii 126, 1948.
- RUFFING, F. M.**
Application of magnesium for cathodic protection. lix 325, 1945.
- RUGE, A. C.**
Earthquakes and elevated tanks. xlix 226, 1935.
- RUGGLES, A. V.**
Average service life of 6 inch. C.I. water mains in Brooklyn, N. Y. lvi 361, 1942.
The useful life of iron and steel standpipes. (Discussion) liv 456, 1940.
- RUGGLES, SYDNEY L.**
Eliminating water hammer from a high pressure regulating-valve. xxxvii 402, 1923.
- RYDER, LINCOLN W.**
The case for water witching. lxiii 232, 1949.
- SALMOND, HERBERT F.**
West Parish filtration plant, Springfield water works. xlii 345, 1932.
- SAMPSON, GEORGE A.**
Cost of small surface water supplies, New England. liii 121, 1939.
Engineering problems in recent improvements, Newton, Mass. xlviii 88, 1934.
Improvement of water supply, Keene, N. H. (With R. S. Weston) xl 1, 1926.
Iron removal plant, Amesbury, Mass. xlii 53, 1928.
Stand-pipe, Middleboro, Mass. xxx 251, 1916.
- SANDERS, PERCY R.**
Automatic chlorination, Concord, N. H. xliii 399, 1929.

- Cold weather troubles—a symposium. (With G. H. Finneran, W. F. Sullivan, and F. H. Kingsbury.) xlviii 320, 1934.
- Electric pumping, Concord, N. H. xxxvi 517, 1922.
- High service water supply, Concord, N. H. (With F. A. Marston) xlvii 1, 1933.
- Water supply, Concord, N. H. 1 331, 1936.
- SANDERSON, E. C.**
Winchester, Mass., water works. xlviii 286, 1934.
- SANDO, WILL J.**
Pumping machinery, Metropolitan Water Works, Boston, Mass. xv 299, 1900-01.
- Trial of 80-m.g.d. pump, Metropolitan Water Works, Boston, Mass. xv 232, 1900-01.
- SAUNDERS, DANIEL J.**
Iron and hardness removal. lii 443, 1938.
- SAVILLE, CALEB M.**
Color and other phenomena of water from an unstripped reservoir, Hartford, Conn. xxxix 145, 1925.
- Color reduction in storage reservoirs. xlii 416, 1929.
- Compensating reservoirs and water diversion. xl 352, 1926.
- Cleaning mains, Hartford, Conn. xxvii 489, 1913.
- Fifty years in water works practice. xlv 33, 1932.
- Financing main pipe extensions by assessment. xxxix 185, 1925; xl 22, 1926.
- Floods and droughts in New England. xxxix 1, 1925.
- Interstate water rights. xli 340, 1927.
- New England droughts and floods. li 326, 1937.
- Pipes and pipe laying, Metropolitan Water Works, Boston, Mass. xvii 203, 1903.
- Repairs to lining of small reservoir, Chelsea, Mass. xix 66, 1905.
- Reservoir and stand-pipe, Quincy, Mass. xvi 177, 1902.
- Selection of meters. xxxii 329, 1918.
- Southern New England hydrology. xlvii 363, 1933; xlviii 255, 1934.
- Use and discard of auxiliary fire protection from a polluted source. xxxvi 392, 1922.
- Water ram in distribution system, Hartford, Conn. xxvii 183, 1919.
- Water works experiences, Hartford, Conn. xxx 195, 1916.
- SAVILLE, THORNDIKE**
Nature of color in water. xxxi 78, 1917.
- Water supply, Caracas, Venezuela. xlii 303, 1928.
- SAWYER, ALBERT L.**
Classified cash book. xxxi 54, 1917.
- Legislation and court decisions for sanitary protection of water supplies. xxxii 154, 1918.
- Old aqueduct, Haverhill, Mass. xxii 442, 1908.
- SAWYER, CLAIR N.**
Fertilization of lakes by agricultural and urban drainage. lxi 109, 1947.
- SCHNEIDER, WILLIAM J.**
Copper and brass water services. xliii 148, 1929.
- Copper and health. xlv 485, 1930.
- SCHWARZLER, C.**
Promoting the interest of the taxpayer in water supply. liv 428, 1940.
- SCOTT, ROSSITER S.**
Use of couplings. i 399, 1936.
- SCOTT, WARREN J.**
Bacteriological field studies of water distribution systems. lv 83, 1941.
- Cross-connections in Connecticut. xli 365, 1927.
- Cross-connection surveys. xlix 354, 1935.
- Experiences with the Public Works Administration—a symposium. (With F. A. Barbour, H. J. Lockwood, A. L. Shaw, Earl Devendorf, and A. D. Weston.) xlix 31, 1935.
- Laws and regulations for the protection of public water supplies. xl 425, 1926.
- Stream pollution abatement in Conn. lxi 59, 1947.
- Public water supplies of Connecticut. (With F. O. A. Almquist) xliii 298, 1929.
- Qualifications of operators. li 402, 1937.
- Responsibility for water piping on consumer premises. lix 60, 1945.
- Water works emergencies from health standpoint. xlv 133, 1932.
- 1941 drought in New England (Symposium). lvi 237, 1942.
- SEARS, WALTON H.**
Damages paid for diversions from the Swift and Ware Rivers for the water supply of the Boston Metropolitan District. lxiv 195, 1950.
- Pumping water—historical review. xlix 119, 1935.
- Water for air conditioning. lii 452, 1938.
- SEDGWICK, WILLIAM T.**
Biological water analysis. ii June 7, 1887-88; iv 50, 1889-90.
- Double municipal supplies. (With H. P. Letton) xxv 440, 1911.
- From peace to war, victory and just judgment. xxxii 189, 1918.
- Organisms causing odors and tastes. xiv 54, 1899-1900.
- Protection of surface waters from pollution. xi 245, 1896-97.
- Protection of water supplies from pollution by railroads. xx 427, 1906.
- Responsibility for causation of typhoid. (With C. E. A. Winslow) xx 51, 1906.
- Sand filtration. vii 103, 1892-93.
- Sanitary condition of water supply, Burlington, Vt. x 167, 1895-96.
- Surface water for drinking purposes. v 33, 1890-91.
- Typhoid, Washington, D. C. xxv 470, 1911.
- Water supply sanitation 19th century. xv 315, 1900-01.
- Water supply sanitation 19th and 20th century. xxx 183, 1916.
- SENIOR, SAMUEL P.**
Comments on the construction of the Saugatuck Dam. lx 266, 1946.
- Saugatuck development of the Bridgeport Hydraulic Co. lv 473, 1941.
- Water works, Bridgeport Hydraulic Co., Bridgeport, Conn. xxxv 309, 1921; xlvii 213, 1938.
- SEYMOUR, CHARLES W. S.**
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- SHANNON, WILLIAM L.**
Prediction of frost penetration. lix 356, 1945.
- SHAPIRO, ROBERT**
Katadyn treatment of water and swimming pools. (With F. E. Hale) li 113, 1937.
- SHAUGHNESSY, J. F.**
Phelps Brook Dam, Hartford, Conn. xxxii 39, 1918.

- SHAW, ARTHUR L.**
 Economics of water purification. (With E. S. Chase) lii 131, 1938.
 Electric pumping station, Kennebec Water District, Waterville, Me. xxxix 32, 1925.
 Experiences with the Public Works Administration—a symposium. (With F. A. Barbour, H. J. Lockwood, W. J. Scott, Earl Devendorf, and A. D. Weston.) xlix 28, 1935.
 Rapid sand filters, Lawrence, Mass. (With E. S. Chase) liii 412, 1939.
 Suit your building to its neighborhood. lvii 3, 1943.
 Water supply system, Hinsdale, N. H. i 135, 1936.
 Water treatment at Groton, Conn. lv 233, 1941.
- SHAW, PERCY A.**
 Brook diversion to improve water supply, Manchester, N. H. i 291, 1936.
 Incorporating the Amoskeag Mills water system into the Manchester, N. H., city system. lvi 212, 1942.
 Manchester distribution reservoir. xlviii 281, 1934.
 Power and pumping facilities, Manchester, N. H. liii 352, 1939.
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- SHEA, WALTER J.**
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- SHEDD, J. HERBERT**
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- SHERMAN, CHARLES W.**
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 Early log pipe, Boston, Mass. xli 216, 1927.
 Economy of municipal bonds for water works construction. xl 15, 1926.
 Emergency water supply, Leominster, Mass. (With W. G. Classon) xxxix 450, 1925.
 Grouting or cushioning standpipe bases. xxx 131, 1916.
 History of N. E. Water Works Association. xlvii 1, 1932.
 Municipal water works financing in Massachusetts. (With W. S. Johnson and H. A. Symonds.) xxx 279, 1916.
 New England hydraulic science. xlvii 153, 1933.
 Protecting iron and steel standpipes from corrosion. xxxiii 272, 1919.
 Reinforced concrete standpipes. liii 201, 1938.
 Revenue and operating expenses of municipally-owned water works, Massachusetts, 1913. xxx 260, 1916.
 Siphon operation on main supply pipe. (With W. R. Brann) xxxv 36, 1921.
 The useful life of iron and steel standpipes. liv 149, 1940.
 Term of water works bonds. xxxvi 589, 1922.
 Tuberculation and deterioration of water pipes, Belmont, Mass. xlviii 300, 1934.
- Tuberculation of cast iron pipe. xlii 259, 1928.
 Typhoid epidemic, Plymouth, Pa., 1885. xli 23, 1927.
 Underwriters test of transite pipe. li 282, 1937.
 Water consumption. xxxvi 273, 1922.
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- SHERMAN, EDWARD C.**
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- SHERMAN, LESLIE K.**
 New plumbing regulations, Connecticut. lii 251, 1938.
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 Safeguards for ground water supplies. liii 299, 1939.
- SHERMAN, WILLIAM B.**
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 Pumping capacity and maximum consumption. iii 90, 1888-89.
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- SHURTLEFF, FLAVEL**
 Community planning. lxi 231, 1947.
- SICKMAN, ALBERT F.**
 Water power, Holyoke, Mass. xviii 337, 1904.
- SIDDONS, JOSEPH S. V.**
 Torresdale filter plant, Philadelphia, Pa. (With F. D. West) xxvii 337, 1913.
- SIEMS, V. BERNARD**
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 Metropolitan district for Baltimore County, Md. xxxviii 260, 1924.
- SIGWORTH, E. A.**
 Activated carbon. li 200, 1937.
 Activated carbon manufacture and specifications. liii 265, 1939.
 Taste and odor control. lxiii 238, 1949.
- SKINNER, HERVEY J.**
 Industrial water requirements. lii 403, 1938.
- SKINNER, JOHN F.**
 Cobbs Hill Reservoir, Rochester, N. Y. xxiv 498, 1910.
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 Sources of supply, conduits and reservoirs, Rochester, N. Y. xxxviii 219, 1924.
- SMITH, ARTHUR D.**
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- SMITH, ARTHUR H.**
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- SMITH, A. V.**
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- SMITH, BENJAMIN L.**
 New gravity water supply system, Albany, N. Y. (With R. E. Horton) xlv 89, 1931.
- SMITH, EDWARD W.**
 Variability in normal chloride content of surface ground water supplies in Mass. lvii 10, 1943. (With Francis H. Kingsbury)
- SMITH, ERASTUS G.**
 Mississippi River as a source of water supply. xix 215, 1905.
- SMITH, FRED E.**
 Chlorination of a Cambridge main. li 57, 1937.
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- Filter plant operation at Cambridge, Mass. lxiii 220, 1948.
 Operating experiences, Cambridge, Mass., filtration plant. (With M. C. Whipple) xlv 321, 1931.
 Sludge disposal at water purification plants in New England. lxii 265, 1948.
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- SMITH, GORDON Z.**
 Control of water waste by house-to-house inspection. xxxv 322, 1921.
- SMITH, HERBERT E.**
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- SMITH, HUBERT B.**
 Pitot tube for water flow and pressure studies. xlv 471, 1930.
- SMITH, JOHN E.**
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- SMITH, J. WALDO**
 Catskill water supply, New York, N. Y. xxix 481, 1915.
 Schoharie development, New York, N. Y. xxxiii 257, 1919.
- SMITH, LEANDER G.**
 Experiences during the recent fires in York County, Me. lxii 164, 1948.
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- SMITH, LEONARD C. S.**
 Diesel engine in a pumping plant. xxxix 135, 1925.
- SMITH, LEAVITT R.**
 Hydrant pressure and flowage test, Portland, Me. xlvii 107, 1933.
- SMITH, THEOBALD**
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- SMITH, WILSON F.**
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- SNELL, GEORGE H.**
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- SNOW, BAYARD F.**
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- SNOW, ERNEST A., JR.**
 Studies on the removal of iron and manganese from water. (With Edward W. Moore) lvi 320, 1942.
- SNOW, RUSSELL**
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- SOULE, RALPH M.**
 1941 drought in New England (Symposium). lvi 237, 1942.
- SOPER, GEORGE A.**
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- SPEAR, WALTER E.**
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- SPELLER, F. N.**
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- SPILLMAN, MAX**
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- SPINK, L. K.**
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- SPOONER, HERMAN W.**
 Haskell's Brook Reservoir and Dam, Gloucester, Mass. xix 27, 1905.
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- STACY, GEORGE A.**
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- STANLEY, WILLIAM E.**
 Notes on water supply in North African Campaign. lviii 293, 1944.
- STARR, ROBERT L.**
 Proceedings of the Air Raid Precaution School, Delayed bombs and bomb reconnaissance. lvii 110, 1943.
 Proceedings of the Air Raid Precautions School, Elements of Teaching. lvii 100, 1943.
- STEARNS, DONALD E.**
 Ground water supplies. lviii 338, 1944.
- STEARNS, FREDERIC P.**
 Effect of storage upon water quality. v 115, 1890-91.
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- STEARNS, RALPH H.**
 Decolorization of water by storage. xxx 20, 1916.
- STERLING, CLARENCE I. JR.**
 Water supply problems in Latin America. ix 221, 1946.
- STETSON, T. M.**
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- STEVENS, FRED O.**
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 Mechanical filtration, Putnam, Conn. xxxvii 103, 1924.
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- STEVENS, JOHN C.**
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- STEVENSON, W. L.**
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- 'STICKEL, PAUL W.**
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- SILLIMAN, FREDERICK B.**
 Watershed practices of Bridgeport Hydraulic Co., and aerial watershed surveys. lxi 302, 1947.
- STONE, CHARLES A.**
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- STORRIE, WILLIAM**
 Toronto water works extension—a general description of the system. lxi 1, 1947.
- STORRS, HARRY A.**
 Electrolysis. x 33, 1895-96.
- STORY, CARROLL F.**
 Ludlow filters, Springfield, Mass. xxiii 229, 1909.

- STORY, STEPHEN B.**
Meter reading and billing, Rochester, N. Y. xxxix 71, 1925.
- STUART, C. A.**
Sanitary significance of coliform bacteria in water. lv 355, 1941.
- STUART, F. E.**
Electronic principle of water purification. lx 236, 1946.
Powdered activated carbon in water purification. xlii 312, 365, 1932.
- STUART, H. W.**
Improvement in centrifugal casting process. (With S. E. Linderman) xlviii 423, 1934.
- STUDLEY, JAMES**
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The use of activated carbon in treating open reservoirs. lxi 135, 1947.
- SUDRABIN, L. P.**
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Effect of cathodic protection on rust-tubercle pH. lxiv 309, 1950.
- SULLIVAN, DANIEL M.**
Dual system of water mains. lii 78, 1938.
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- SULLIVAN, E. J.**
Chlorination of pipe line, New Bedford, Mass. xlix 221, 1935.
Cross-connections and the plumbing testing laboratory in the New Bedford Vocational School. liv 179, 1940.
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- SULLIVAN, WILLIAM F.**
Cold water troubles—a symposium. (With P. R. Sanders, G. H. Finneran, and F. H. Kingsbury.) xlviii 326, 1934.
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Nashua fire of May 4, 1930. xlii 204, 252, 1932.
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Tests of large meters and fire service devices, Lowell, Mass. xix 264, 1905.
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- SUTER, RUSSELL**
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- SWAIN, GEORGE F.**
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- SWAN, CHARLES H.**
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- SWAN, G. L.**
Reliability features of electrically operated pumping stations. (With R. C. Dennett) xli 268, 1927.
- SWARTS, GARDNER T.**
Difficulties in water purification. xxv 191, 1911.
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- SWARTZ, SAMUEL O.**
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- SWEENEY, JAMES A.**
Distribution system maintenance. lii 318, 1938.
- SWEETSER, ROBERT C.**
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- SYMONDS, HENRY A.**
Court decisions in purchase of Braintree Water Supply Co. xxxvi 426, 1922.
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Municipal water works financing in Massachusetts. (With C. W. Sherman and W. S. Johnson.) xxx 279, 1916.
- SYMONDS, ALLEN M.**
Highlights of private water company operation. lxii 229, 1948.
- SYMAN, JOHN F.**
Chlorine dioxide—a new development in treatment. (With J. D. MacMahon and G. P. Vincent.) lviii 264, 1944.
Chlorine dioxide as a bactericide in water works operation. (With R. N. Aston) lxii 80, 1948.
- TALBOT, BENJAMIN**
Linings and covering for water pipes. xl 446, 1926.
- TANKARD, ERNEST E.**
Pressure filtration. lxiv 299, 1950.
- TARBETT, R. E.**
Public water supply in the Civilian Defense Program. lvi 221, 1942.
- TARLTON, ELLIS A.**
Algae control at Danbury, Conn. lxiii 165, 1949.
- TAYLOR, EDWY L.**
Water rates. xlix 360, 1935.
- TAYLOR, LUCIAN A.**
Dam, Woodbridge, Conn. vi 51, 1891-92.
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- TAYLOR, STEPHEN H.**
Breaks in water mains, service pipes and hydrants—a symposium. (With F. A. McInnes, S. E. Killam, F. A. Marston, C. W. Mowry, and G. H. Finneran.) xlv 30, 1931.
Machinery vs. hand labor in pipe laying. xxxix 445, 1925.
Regulation of water pipes within buildings. l 129, 1936.
Second force main, New Bedford, Mass. xlix 206, 1935.
Water supply, New Bedford, Mass. xxxvi 370, 1922.
- TERZAGHI, CHARLES**
Soil studies for Granville Dam, Westfield, Mass. xliii 191, 1929.
- THOMAS, HAROLD A., JR.**
Mathematics in the water works laboratory. lx 153, 1946.
- THOMAS, HARRY L.**
Producer gas plant, Hingham, Mass. xxii 1, 247, 1908.
- THOMAS, ROBERT J.**
Standard specifications for water meters. xxx 430, 1916.
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- THOMPSON, G. WILBUR**
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- THOMPSON, J. G.**
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- THOMPSON, RUDOLPH E.**
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- THOMPSON, SANFORD E.**
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- THOMSON, JOHN**
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- THWAITS, E. H.**
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- TIFFANY, A. N.**
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- TIGHE, JAMES L.**
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- TILDEN, J. A.**
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- TOUMEY, J. W.**
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- TOWER, D. N.**
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- TRACY, EDWARD L.**
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Observations on water samples from cement-asbestos pipe systems in Vermont. lxiv 164, 1950.
Stream pollution abatement in Vermont. lxi 74, 1947.
1941 drought in New England. (Symposium) lvi 237, 1942.
- TRAGER, LEONARD W.**
Stream pollution abatement in New Hampshire. lxi 68, 1947.
Sanitation and public health experiences in Europe. lx 43, 1946.
1941 Drought in New England (Symposium). lvi 237, 1942.
- TRAUTWINE, JOHN C., JR.**
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- TREMBLAY, J. A.**
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- TRIBUS, LOUIS L.**
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- TRYON, JAMES E.**
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- TUBBS, J. NELSON**
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- TURNER, HOMER R.**
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- TURNER, HOWARD M.**
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- TURNER, JAMES V.**
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- TYLER, RICHARD G.**
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- Loss of head in rapid sand filters. (With W. A. Danielson and M. LeBosquet, Jr.) xl 322, 1926.
- UNDERWOOD, WILLIAM L.**
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- VAN GILDER, LINCOLN**
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- VENNER, JOHN**
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- VINCENT, G. P.**
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- VOGELSON, J. O.**
Mortality rates in relation to water supply, Philadelphia, Pa. xxviii 127, 1914.
- VOSS, WALTER C.**
Proceedings of the Air Raid Precaution School. Effects of bombings on structures and other installations. lvii 127, 1943.
- WADDELL, THEODORE N.**
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- WADSWORTH, LEWIS L.**
Water supply, Madison, Anson, and Emden, Maine. xxxi 207, 1917.
- WAGNER, BERNARD M.**
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- WALDEN, A. E.**
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- WALKER, CHARLES K.**
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- WALKER, WILLIAM H.**
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- WALSH, JOHN H.**
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- WARING, F. H.**
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- WARREN, H. S.**
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- WASTENEYS, HARDOLPH**
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- WATSON, GEORGE L.**
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- WATSON, HAROLD**
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- WEBER, HAROLD**
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- WEDEN, DAVID B.**
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- WELLINGTON, MARSHALL S.**
Free-residual chlorination of the New Haven Water Co. (With S. Jacobson) lx 363, 1946.
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- WELLS, GEORGE L.**
"Wyckoff" water pipe. xiii 288, 1898-99.
- WELLS, GEORGE M.**
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- WELLS, WILLIAM F.**
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- WELSH, J. N.**
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- WENTWORTH, FRANKLIN H.**
Field engineering service, National Fire Protection Assoc. xli 428, 1927.
- WENTWORTH, JOHN P.**
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- WEST, FRANCIS D.**
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Torresdale filter plant, Philadelphia, Pa. (With J. S. V. Siddons) xxvii 358, 1913.
- WEST, VERNON F.**
Costs of lead substitutes for pipe joints. xxxvii 75, 1923.
- WESTON, ARTHUR D.**
Economic conditions and water supplies. xlv 214, 1932.
Experiences with the Public Works Administration—A symposium. (With F. A. Barbour, H. J. Lockwood, A. L. Shaw, W. J. Scott, and Earl Devendorf.) xlix 40, 1935.
Flood of March, 1936, Massachusetts. li 90, 1937.
Gastro-enteritis, Peabody, Mass., 1913. xxxiv 193, 1920.
Health laws relating to public water supplies of Massachusetts. xxxviii 333, 1924.
Legal aspects of financial management of water works in Mass. (Presidential address.) xliii 328, 1929.
Mass. Dept. of Public Health and the emergency protection of public water supplies. lv 9, 1941.
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State emergency plan of the Commonwealth of Massachusetts. lv 489, 1941.
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- WESTON, EDMUND B.**
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- WESTON, ROBERT S.**
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- Corrosive action of water on metals. xxiv 559, 1910.
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- WHEELER, RALPH N.**
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- WHEELER, WILLIAM**
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- WHERRY, WILLIAM M.**
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- WHIPPLE, GEORGE C.**
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- Review of 19th annual report, London Metropolitan Water Board. xl 33, 1926.
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- Laying cast iron water mains. (Committee report) lxx 392, 1951.
- Progress report on laying cast iron water mains. (Committee report) lxxi 409, 1952.
- CLEANING AND DISINFECTING:**
Maintaining pipeline coefficient "C" after water main cleaning. (W. D. Monie and H. B. Scales) lxxi 203, 1957.
- Pressure tool cleaning versus chair head cleaning. (R. F. Bahr, Jr.) lxxii 298, 1958.
- CONCRETE:**
Reinforced concrete pressure pipe. (Committee report) lxxi 408, 1952.
- JOINTS:**
Mechanical-joint cast iron pipe. (T. S. Wolfe) lxxix 278, 1955.
- LINING AND COATING:**
Re-lining of water mains in Situ. (Alan Atkinson) lxx iii, 1956.
- Special uses of cement-lined pipe of large size. (W. A. Arnold) lxxiv 57, 1960.
- PLASTIC PIPE:**
Experience with plastic service pipe. (A. M. Symonds) lxxviii 217, 1954.
- Manufacture of plastic pipe. (B. Britton) lxxviii 211, 1954.
- Plastic pipe and plastic linings for water supply uses. (Committee report) lxxi 385, 1957; lxxii 416, 1958; lxxiii 387, 1959; lxxiv 376, 1960.
- SUBMARINE:**
Laying subaqueous pressure mains. (S. Haseltine) lxxi 10, 1952.
- PIPE LAYING.** See **PIPE AND PIPE LINES.**
- PIPE TAPPING.** See **PIPES (JOINTS).**

PITOMETERS AND PITOT TUBES. See **HYDRAULICS.**
PLUMBING.

Cross connections with heating systems containing corrosion inhibitors. (F. J. Lari-viere) lxxii 350, 1958.

Recent surveys in Connecticut of water piping within buildings. (C. H. Lawrance) lxxvi 20, 1952.

POLLUTION. See QUALITY.

PRECIPITATION. See HYDROLOGY.

PRESSURE REGULATORS. See GATES, VALVES.

PRIVATE WATER WORKS. See MANAGE-MENT also FINANCING.

PROTECTION OF WATER SUPPLY. See HEALTH, QUALITY, LEGAL.

PUBLIC HEALTH. See HEALTH.

PUBLIC RELATIONS.

Publicity and public relations. (Committee report) lxxi 383, 1957.

PUMPING.

GENERAL:

How the Taunton pumping station was modernized. (F. J. Turnbull) lxxi 296, 1957.

Pumping problems in Worcester, Mass. (C. B. Hardy) lxxiii 23, 1959.

Pumps and pumping stations. (R. Hazen) lxxii 114, 1953.

The Hudson River pumping plant of the City of New York. (T. Eide) lxxvii 245, 1953.

ELECTRICAL:

Application and operation of the submersible motor and pump. (J. E. Hawks) lxxi 104, 1957.

Improvements to pumping and filtration facilities at Cambridge filter plant. (T. R. Camp) lxxviii 135, 1954.

Improvements to the New Bedford Water System. (H. C. Mandell) lxxix 289, 1955.

Maintenance has a fourth dimension. (L. T. Jester, Jr.) lxxix 168, 1955.

Maintenance of motors and control. (W. Hansen) lxxix 177, 1955.

Maintenance of power-distribution equip-ment. (A. H. Ruling, Jr.) lxxix 173, 1955.

The Barrington station of Bristol County Water Co., R. I. (D. F. Bixler and C. E. Trowbridge) lxxix 140, 1955.

PURIFICATION. See TREATMENT AND PURIFICATION.

QUALITY.

GENERAL:

Continuing research related to water and sewage treatment. (H. V. Moss) lxxi 284, 1957.

Irrigation water quality of the New York-New England region. (J. A. Creatura) lxxiv 151, 1960.

Oxygen demand exerted by leaves stored under water. (E. S. Chase and A. F. Ferullo) lxxi 307, 1957.

Quality control of water in the Springfield system. (J. P. Lynch) lxxviii 174, 1954.

Recreational use of public water supplies. (Committee report) lxxvii 321, 1953.

Sanitary supervision of Maine water sup-plies. (H. H. Potter) lxxvi 190, 1952.

Significance of radioactivity to water works superintendents. (R. Eliassen) lxxvi 260, 1952.

Synthetic detergents and public water sup-plies. (C. N. Sawyer and D. W. Ryck-man) lxxi 261, 1957.

The new gas transmission lines in Massa-chusetts in relation to public water sup-plies. (R. M. Soule) lxxvi 228, 1952.

AQUATIC GROWTHS:

Algae and other interference organisms in New England water supplies. (C. M. Palmer) lxxii 27, 1958.

Review of microorganisms in water sup-plies. (S. O. Swartz) lxxix 217, 1955.

The most troublesome algae in New England waters. (E. A. Snow, Jr.) lxxvii 328, 1958.

BACTERIOLOGICAL:

Bacteriology in the treatment and laboratory control of public water supplies. (J. J. Collins, Jr.) lxxvi 253, 1952.

Limitations of standard bacteriologic meth-ods in evaluating sanitary quality of water. (F. W. Gilcrease) lxxvi 167, 1952.

CHEMICAL AND PHYSICAL:

Contamination of ground water by synthetic detergents. (I. L. Newell and F. O. A. Almquist) lxxiv 61, 1960.

Mineral characteristics of Maine public water supplies. (R. W. MacDonald) lxxviii 204, 1954.

Tastes and odors in Connecticut water sup-plies. (R. S. Woodhull) lxxix 126, 1955.

Taste and odor problems in the United States. (E. A. Sigworth) lxxviii 224, 1959.

POLLUTION, PROTECTION AND CONTROL:

Domestic and industrial water supplies face the pollution problem. (M. Pirnie) lxxviii, 250, 1954.

Functions, duties and authorities of the pub-lic health service on water pollution con-trol. (L. W. Trager) lxxv 119, 1951.

Sanitary protection of surface water sup-plies. (W. A. Healy) lxxvi 214, 1952.

Significance of the coliform test in relation to intestinal virus pollution of water. (F. W. Gilcrease and S. M. Kelly) lxxviii 255, 1954.

Water supply control in retrospect—a brief review. (C. R. Cox) lxxvi 290, 1952.

QUICKSAND. See PIPE LINES.

RATES. See FINANCING.

RAINFALL. See HYDROLOGY.

RECORDS. See ACCOUNTING.

RECREATION FACILITIES. See WATER-SHEDS.

RED WATER. See CORROSION.

REGULATIONS OF PUBLIC UTILITIES. See MANAGEMENT.

REGULATIONS. See MANAGEMENT.

REGULATORS. See GATES, VALVES.

RELIEF VALVES. See GATES, VALVES.

RESERVOIRS.

GENERAL:

New distribution reservoir at Taunton. (F. M. Cahaly) lxxi 302, 1957.

Removal of reservoir debris while maintain-ing water service. (P. C. Karalekas and C. A. Manganaro) lxxiv 259, 1960.

DISTRIBUTING:

New asphalt lined reservoir for Rutland, Vt. (E. L. Tracy) lxxix 314, 1955.

Wickham Hill storage reservoirs. (W. Doren-baum) lxxv 173, 1951.

See also **DESCRIPTION OF VARIOUS WATER SYSTEMS AND SUPPLIES.**

REVENUE. See MANAGEMENT and FI-NANCING.

RUN-OFF. See HYDROLOGY.

SALT WATER SUPPLIES. See FIRES.

SANITATION. See HEALTH and QUALITY.

SEDIMENTATION. See TREATMENT.

SEEPAGE. See DAMS.

SERVICE PIPES AND EQUIPMENT. See PIPE-PIPE LINES.

SEWAGE AND WASTE DISPOSAL. See HEALTH, TREATMENT.

SINKING FUNDS. See FINANCING.

SIPHONS. See **PIPES.**

SNOWFALL. See **HYDROLOGY.**

Odors and taste in public water supplies. (D. H. Turcotte). lxviii 181, 1954.

SOFTENING. See **TREATMENT (SOFTENING).**

SOIL CORROSION. See **CORROSION.**

SOURCES OF SUPPLY. See **GROUND WATER, SUPPLY, DESCRIPTION, WATERSHEDS.**

SPECIFICATIONS AND STANDARDS.

American standard specifications for cast iron pipe centrifugally cast in metal molds, for water or other liquids. (A. W. W. A.) lxvii Sept. appended, 1953.

American standard specifications for cast iron pipe centrifugally cast in sand lined molds, for water or other liquids. (A. W. W. A.) lxvii Sept. appended 1953.

American standard specifications for deep well vertical turbine pumps. (A. W. W. A.) lxix Dec. appended, 1955.

American standard specifications for a mechanical joint for cast iron pressure pipe and fittings. (A. W. W. A.) lxvii June appended, 1953.

American standard specifications for short-body cast iron fittings, 3" to 12", for 250-psi water pressure plus water hammer. lxvii March appended, 1953.

A. W. W. A. standard specifications for coal-tar enamel protective coatings for steel water pipe. lxvii Mar. appended, 1958.

Code for pressure piping. (Committee report) lxx 423, 1956.

Current specifications for cast iron pipe and how to order to specifications. (T. W. Wolfe) lxxi 130, 1957.

Deep well vertical pumps. (Committee report) lxvii 405, 1958; lxviii 384, 1959; lxvix 364, 1960.

Gate valves for ordinary water works service. (Committee report) lxviii 383, 1959.

Gate valve specifications. (Committee report) lxx 396, 1951; lxvi 413, 1952.

Hydrant specifications. (Committee report) lxx 395, 1951; lxvi 412, 1952; lxvix 363, 1960.

Laying cast iron pipe. (Committee report) lxxi 376, 1957.

Laying cast iron water mains. (Committee report) lxvii 310, 1953; lxx 424, 1956.

Meter specifications. (Committee report) lxviii 382, 1959.

Progress report of N. E. W. W. A. representatives on joint A. W. W. A.-N. E. W. W. A. committee on meters. (Committee report) lxvix 374, 1960.

Progress report on deep well vertical pumps. (Committee report) lxviii 350, 1954.

Progress report of committee on deep-well vertical turbine pumps. (Committee report) lxx 397, 1955.

Progress report on laying cast iron water mains. (Committee report) lxviii 347, 1954.

Reinforced concrete pressure pipe. (Committee report) lxx 390, 1951; lxvii 309, 1953; lxviii 346, 1954; lxvix 377, 1960.

Report of N. E. W. W. A. representative on A. W. W. A.-N. E. W. W. A. committee C500 on gate valves for ordinary water works service. lxvix 375, 1960.

Revisions to steel water tank standards. lxvi appended, 1952.

Sluice gate specifications. (Committee report) lxx 397, 1951.

Specifications for cast iron pipe and fittings. (Committee report) lxx 389, 1951; lxvi 407, 1952; lxvii 308, 1953; lxviii 345, 1954; lxx

392, 1955; lxx 422, 1956; lxxi 375, 1957; lxvii 402, 1958; lxviii 380, 1959; lxvix 359, 1960.

Specifications for prestressed concrete water storage tanks. (Committee report) lxviii 391, 1959; lxvix 372, 1960.

Specifications for steel pipe. (Committee report) lxx 393, 1951; lxvi 410, 1952; lxvii 311, 1953; lxviii 348, 1954; lxix 393, 1955; lxx 426, 1956; lxviii 393, 1959.

Standard specifications for fire hydrants for ordinary water works service. A. W. W. A., N. E. W. W. A. lxvii Sept. 1953.

Standard specifications for the installation of cast iron water mains. (Committee report) lxvix 360, 1960.

Standardization of pipe flanges and fittings. (Committee report) lxx 394, 1951; lxvi 411, 1952; lxvii 312, 1953; lxviii 349, 1954; lxx 394, 1955; lxx 427, 1956; lxxi 377, 1957; lxvii 404, 1958; lxviii 382, 1959; lxvix 361, 1960.

Tentative recommended practice for painting and repainting elevated steel water storage tanks, standpipes, and reservoirs. A. W. W. A. lxvi Dec. appended, 1952.

Tentative standard specifications for asbestos-cement water pipe. A. W. W. A. lxviii June 1954.

Tentative standard specifications for cement mortar lining of water pipelines in place sizes 16" and over. lxviii Dec., 1954.

Tentative standard specifications for cast iron pressure fittings. A. W. W. A. lxvii June appended, 1953.

Tentative standard specifications for installation of cast iron water mains. A. W. W. A. lxxi June appended, 1957.

Tentative standard specifications for reinforced concrete water pipe—non cylinder type, not prestressed. A. W. W. A. lxvi Mar. appended, 1952.

Tentative standard specifications for dimensions for steel pipe fittings. A. W. W. A. lxxi Mar. appended, 1957.

Tentative standard specifications for gate valves for ordinary water works service. A. W. W. A. lxvii March appended, 1953.

SPILLWAYS. See **DAMS AND RESERVOIRS.**

STANDPIPES. See **TANKS.**

STATISTICS. See **ACCOUNTING AND RECORDS.**

STERILIZATION. See **TREATMENT (DISINFECTION).**

STORAGE. See **HYDROLOGY, QUALITY, RESERVOIRS, DAMS.**

STREAM FLOW. See **HYDROLOGY.**

SUPPLY.

GENERAL:

A water resource program for Massachusetts. (C. I. Sterling, Jr.) lxxi 313, 1957.

Conservation, development and utilization of water resources. (Committee report) lxx 400, 1951; lxvi 422, 1952; lxvii 314, 1953; lxviii 352, 1954; lxix 398, 1955; lxx 428, 1956; lxxi 380, 1957; lxvii 407, 1958; lxviii 385, 1959; lxvix 365, 1960.

Metropolitan district sources of water supply. (Warren A. Gentner) lxx 68, 1956.

Natural resources survey of New England and New York. (H. L. Fox) lxvi 43, 1952.

Public water supply resources of the Connecticut River Valley. (A. Iantosca) lxvix 285, 1960.

Public water supplies of Connecticut during the 1957 drought. (F. O. A. Almquist) lxviii 1, 1959.

The experiences of New Britain with the 1957 drought. (G. W. Wood) lxviii 15, 1959.

- Water situation in New York City in 1950. (E. J. Clark) lxxv 203, 1951.
- MILITARY:**
- Portsmouth air force base water supply. (P. F. Howard) lxxii 17, 1958.
- Water supplies for Army bases in Alaska. (W. L. Hyland and G. M. Reece) lxxv 1, 1951.
- See also **DESCRIPTIONS OF VARIOUS WATER SYSTEMS AND SUPPLIES.**
- TANKS, STANDPIPES**
- Advantages of steel tanks for water storage. (J. A. Morley) lxxiii 172, 1959.
- Construction of spherical and radial-cone elevated tanks. (J. E. Revelle) lxxv 292, 1951.
- Elevated tanks and standpipes. (Committee report) lxxiv 362, 1960.
- Maintenance of steel water works tanks. (G. A. Sampson) lxxix 323, 1955.
- Preload water tanks. (J. J. Closner) lxxii 302, 1958.
- Prestressed water tanks. (F. X. Crowley) lxxii 317, 1958.
- Revisions to steel water tank standards. A. W. W. A. lxxix 424, 1955.
- Steel standpipes and elevated tanks. (Committee report) lxxix 395, 1955.
- Steel storage-tank reconstruction of Sanford, Maine. (E. S. Littlefield and R. L. Meserve) lxxiii 336, 1959.
- Tank-paint manufacturers' problems in the maintenance of steel water works tanks. (C. J. Gotthardt) lxxix 337, 1955.
- The painting contractors' problems in the maintenance of steel water works tanks. R. O. Leonard) lxxix 342, 1955.
- The superintendents' problems in the maintenance of steel water works tanks. (A. M. Symonds) lxxix 331, 1955.
- TASTES AND ODORS.** See **QUALITY AND TREATMENT.**
- THICKNESS OF PIPE.** See **PIPE AND SPECIFICATIONS.**
- TREATMENT AND PURIFICATION.**
- GENERAL:**
- Application of ultra violet ray sterilization to water treatment. (F. W. Gilcreas and L. DeLalla) lxxvii 130, 1953.
- Automatic control of chemical addition. (R. H. Babcock) lxxiv 189, 1960.
- Automation in water treatment plants. (R. H. Condell) lxxiii 233, 1959.
- Believe-It-or-Not experiences with chemical feeders. (R. J. Leveque) lxxviii 278, 1954.
- Burlington water quality and treatment plant operation. (E. L. Tracy) lxxiv 113, 1960.
- Control of tastes and odors at the Billerica water treatment plant. (B. E. Hawkes) lxxiv 236, 1960.
- Desalting of saline waters: Review of present status. (E. W. Moore) lxxv 319, 1951.
- Detergent research related to water and sewage treatment. (F. J. Coughlin) lxx 298, 1956.
- Factors influencing the efficiency of activated carbon. (A. Y. Hyndshaw, H. F. Laughlin, J. G. Filicky and D. C. Colebaugh, Jr.) lxxvi 36, 1952.
- Guides for selection of chemical feeders. (P. A. Coffman, Jr.) lxxvii 192, 1953.
- How to secure maximum benefits with activated carbon. (A. Y. Hyndshaw) lxxix 69, 1955.
- Investigation of liquid alum flow measurement. (K. F. Knowlton and R. H. Babcock) lxxiii 159, 1959.
- Manganese removal with chlorine and chlorine dioxide. (A. E. Griffin) lxxii 321, 1958.
- Modern trends in sea water conversion. (J. J. Campobasso) lxxiv 1, 1960.
- Re-chlorination in the Hartford distribution system. (A. J. Minkus) lxxii 251, 1958.
- Treating algae under the ice at Westfield, Mass. (E. A. Snow, Jr. and A. Iantosca) lxxvi 47, 1952.
- Water quality and treatment. (Committee report) lxxvi 404, 1952; lxxix 387, 1955; lxxiii 378, 1955.
- DISINFECTION:**
- A pilot plant, for water treatment and its operation at Middleton Pond, Mass. (W. B. Davis and H. J. Steinhurst) lxxiv 124, 1960.
- A tentative procedure for disinfecting water mains. A. W. W. A. lxxviii June, 1954.
- Action of ozone on water-borne bacteria. (J. M. Dickerman, with A. O. Castraberti and J. E. Fuller) lxxviii 11, 1954.
- Chlorination and bacterial problems in the distribution system. (C. H. Reed) lxxvi 279, 1952.
- Chlorination, a ten year review. (A. E. Griffin) lxxviii 97, 1954.
- Chlorination experiences during the 1954 hurricanes. (T. J. Rinaldo) lxxix 264, 1955.
- Chlorination-theory versus practice. (V. W. Langworthy) lxxix 78, 1955.
- Chlorine and cylinder handling. (R. A. Knief) lxxi 281, 1957.
- Microstaining and ozonation—pilot plant investigations for treating a surface water supply at Danvers, Mass. (E. T. Killam) lxxii 37, 1959.
- Operating experience with chlorine dioxide. (J. C. Derby) lxxix 231, 1955.
- The break-point process for free residual chlorination. (A. E. Griffin and R. J. Baker) lxxiii 250, 1959.
- FILTRATION:**
- Description of installation of automatic diatomaceous-earth filters at Saratoga, California. (G. A. Petersen) lxxiv 245, 1960.
- Design and operation of an automatic filter in Winooski, Vermont. (W. C. Gilbert) lxxvi 203, 1952.
- Diatomaceous earth filtration. (H. N. Armbrust) lxxix 287, 1955.
- Economics of unit water purification systems. (C. A. Knapp) lxxix 197, 1955.
- Micro-straining and Its Applications. P. L. Boucher) lxx 1, 1956.
- New addition to West Parish filters, Springfield, Mass. (P. C. Karalekas) lxxviii 164, 1954.
- New Water treatment plant for Billerica, Mass. (T. R. Camp) lxxii 47, 1958.
- Operation of slow sand filters during 1955 floods. (J. P. Lynch) lxx 266, 1956.
- Operation of the Lake Whitney filters and use of the Dorr-Clone Sand Washer. (S. Jacobson) lxxiv 272, 1960.
- Performance of the Billerica water treatment plant. (B. E. Hawkes) lxxii 62, 1958.
- The New Britain water filtration plant. (I. L. Newell) lxxviii 149, 1954.
- The Greenwhich Water Co. Mianus filter plant. (H. J. Carlock) lxxi 26, 1957.
- Twenty-five years of water filtration progress. (K. F. Knowlton) lxxix 289, 1959.
- Vacuum type diatomite filters in water treatment. (H. N. Armbrust) lxxiv 143, 1960.

- Washing slow sand filters with a lateral flow. (A. J. Minkus) lxviii 121, 1954.
- Water purification in Cambridge, Mass. (D. H. Turcotte). lxix 191, 1955.
- SOFTENING:**
Water magic. (F. S. Gibbs) lxvii 30, 1953.
- TRENCHING.** See **PIPE.**
- TUBERCULATION.** See **CORROSION.**
- TUNNELS.** See **AQUEDUCTS.**
- TYPHOID.** See **HEALTH.**
- ULTRA VIOLET RAYS.** See **TREATMENT (DISINFECTION).**
- UNEMPLOYMENT RELIEF.** See **MANAGEMENT** also **FEDERAL AGENCIES.**
- VALUATION.** See **FINANCING.**
- VALVES.** See **GATES.**
- VENTURI METERS.** See **HYDRAULICS** also **METERS.**
- WARTIME PROBLEMS (CIVIL DEFENSE)**
Civil defense of New England—recent developments. (A. D. O'Connor) lxvi 135, 1952.
Civil defense in Massachusetts. (J. J. Maginnis) lxx 316, 1956.
Highlights of the defense program and controlled materials plan as affecting water works. (W. L. Picton) lxvi 129, 1952.
The civil defense of New England. (A. D. O'Connor) lxvi 55, 1952.
The water-works laboratory in civil defense. (C. C. Carson) lxvi 177, 1952.
Water supply, fire fighting and civil defense. (F. P. McNea) lxx 327, 1956.
- WATER-BORNE DISEASES.** See **HEALTH.**
- WATER HAMMER.** See **HYDRAULICS.**
- WATERPROOFING.** See **RESERVOIRS** also **TANKS.**
- WATER POWER.**
St. Lawrence power project. (W. M. Hall) lxxi 93, 1957.
- WATER RESOURCES.** See **HYDROLOGY.**
- WATER RIGHTS.** See **LEGAL.**
- WATER SHEDS, FORESTATION.**
Chemical methods of weed control in reservoirs. (V. Mascia) lxxiv 185, 1960.
General forestry practices. (R. C. Hawley) lxvi 100, 1952.
Forestry at Manchester water work—fact or fancy. (A. J. Christie) lxxiv 46, 1960.
Forestry operations on the Scituate reservoir watershed. (W. F. Cowen) lxvii 1, 1953.
Lake Whitney sanitary conditions in relation to certain laboratory examinations. (S. Jacobson and E. L. MacLeman) lxxiii 62, 1959.
Nursery practice and watershed planting at Quabbin Reservoir. (R. Snow) lxvi 111, 1952.
Recreational use of public water supplies. (Committee report) lxxiii 355, 1954; lxx 483, 1956.
Sawmill operations and marketing of forest products. (P. A. Shaw and A. J. Christie) lxvi 104, 1952.
Sanitary protection of watersheds—are we overdoing or underdoing it? (A. D. Weston) lxv 256, 1951.
The management of forested watersheds in New England. (H. W. Lull and N. R. Tripp) lxxii 341, 1958.
The use of chemical weed killers on public water supply watershed. (D. W. Loiselle) lxvii 140, 1953.
- WELDING.** See **PIPES (JOINTS).**
- WELLS.** See **GROUND WATER** also **PUMPING.**
- YIELD OF CATCHMENT AREAS.** See **HYDROLOGY.**