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Letter

MASONRY, MASONRY UNITS, AND MORTAR

Publications by Members of the Staff of the National Bureau of Standards, together with a list of Federal Specifications.

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- The relation between the porosity and crushing strength of clay products.

 A. V. Bleininger. Trans. Am. Ceram. Soc. 12, 564 (1910).
- Tests of lime, W. E. Emley. Trans. National Lime Manufacturers Association, 192 (1911).
- Tests for sewer pipe. R. J. Wig. Proc. ASTM 11, 854 (1911).
- The relation between the crushing strength and porosity of clay products. G. H. Brown, Trans. Am. Ceram. Soc. 14, 292 (1912).
- Results of testing sand-lime brick. W. E. Emley, Proc. Sand-Lime Brick Association, now known as Autoclave Building Products Association, 41 (1912).
- Tests of commercial limes. W. E. Emley, Proc. National Lime Manufacturers Assn., 77 (1913).
- Use of hydrated lime in portland cement. W. E. Emley and H. P. Greenwald Proc. Nat'l Lime Mfgrs. Assn., 245 (1913).

20 Th 311.

- Crushing strength of lime mortar. W. E. Emley and S. E. Young. Proc. Nat'l Lime Mfgrs. Assn., 254 (1913).
- Analytical study of brick specifications. W. E. Emley, Proc. Sand-Lime Brick Assn., 41 (1913).

- Use of the strain gage in the testing of materials. W. A. Slater and H. F. Moore. Proc. ASTM, 13, 1019 (1913).
- Calcium silicate. W. E. Emley, A. A. Klein, and E. M. Sanborn. Proc. Sand-Lime Brick Assn. 35 (1914).
- Method of indicating the rate of set of lime mortar. W. E. Emley, Trans. Am. Ceram. Soc., 16, 117 (1914).
- Effect of consistency and amount of sand on the properties of lime mortars. W. E. Emley. Trans. Am. Ceram. Soc., 16, 151 (1914).
- Strength of lime mortar. W. E. Emley and S. E. Young. Proc. ASTM 14, Part II, 338 (1914).
- Use of lime in portland cement mortar. W. E. Emley. Trans. Nat'l Lime Mfgrs. Assn., 258 (1914).
- Some comparative corrosion tests of plastered metal lath. J. C. Pearson. Proc. ACI, 10, 445 (1914).
- Note on the silicate bond in sand-lime brick. W. E. Emley, A. A. Klein, and E. M. Sanborn. Trans. Am. Ceramic Soc., 17, 471 (1915).
- Practical method for comparing the working qualities of hydrated lime. W. E. Emley. Trans. Nat'l Lime Mfgrs. Assn., 175 (1916).
- Effect of hydrated lime on the compressive strength of concrete. W. E. Emley and S. K. Kaczorowski. Bul. 2, Nat'l Lime Mfgrs. Assn. (1917).
- Properties of cement-lime-sand mortars. W. H. Emley. Proc. ASTM, 17, Part II, 261 (1917).
- Effect of various factors on the properties of sand-lime brick. W. E. Emley and S. Freed. Proc. Sand-Lime Brick Assn., 65 (1917).
- Tests of stucco. J. C. Pearson. Proc. ACI, 14, 109 (1918).
- Effect of various factors on the properties of sand-lime brick. F. A. Kirkpatrick and F. W. Lapham. Proc. Sand-Lime Brick Assn. 8(1918).
- Evidence of the durability of sand-lime brick. F. A. Kirkpatrick and J. W. Palmer. Proc. Sand-Lime Brick Assn., 43 (1918).
- Tests of clays and limes by the Bureau of Standards plasticimeter F. A. Kirkpatrick and W. B. Orange. J. Am. Ceram. Soc., 1, 170 (1918).
- Compressive strength of cement-lime mortars. F. A. Kirkpatrick and W. B. Orange. J. Am. Ceramic Soc., 2, 44 (1919).
- Effect of size of sand upon strength and absorption of sand-lime brick. F. A. Kirkpatrick and F. W. Lapham. Proc. Sand-Lime Brick Assn., 11 (1919).

- Tentative report on design of reinforced gypsum beams. W, A. Slater, Proc. ASTM, 19, Part I, 348 (1919).
- New developments in surface treated concrete and stucco. J. C. Pearson and J. J. Earley. Proc. ACI, 16, 70 (1920).
- Effect of the duration of hardening on the properties of sand-lime brick.
 W. E. Emley and W. M. Cleare. Proc. Sand-Lime Brick Assn., 17, (1920).
- How brick piers fail. W. E. Emley and W. M. Cleare. Proc. Sand-lime Brick Assn., 57 (1920).
- Durability of sand-lime brick. W. M. Cleare. Proc. Sand-Lime Brick Assn., 37 (1920).
- Possibilities of terra cotta castings. R. F. Geller. J. Am. Ceram. Soc., 4, 883 (1921).
- Shrinkage of cement mortars and its importance in stucco construction. J. C. Pearson. Proc. ACI, 17, 133 (1921).
- Preliminary report of exposure tests on colorless waterproofing materials.

 D. W. Kessler. J. Am. Inst. Architects.
- Effect of hydrated lime on the strength and flow of concrete. W. E. Emley. Proc. ASTM 22, Part I (1922), 284. Rock Products, 25, 32 (November 18, 1922). Proc. Nat'l Lime Assn. 57 (1922).
- Effectiveness of different methods of making absorption determinations as applied to hollow building tile. H. D. Foster. J. Am. Ceram. Soc., 5. 788 (1922).
- Effect of grading of sand upon absorption and transverse strength of sandlime brick. W. E. Emley and H. V. Johnson. Proc. Sand-Lime Brick Assn., 34 (1921); Rock Products, (Maclean-Hunter Publishing Corporation) 25 No. 2, 51 (1922).
- Effect of grog additions on fire resistance of hollow tile. H. D. Foster. J. Am. Ceram. Soc., 6, 748 (1923).
- Tests of lime block. W. E. Emley. Proc. Nat'l. Lime Assn. 73 (1923).
- Process for improving the quality of masons' hydrated lime U. S. Patent No. 1,410,087.
- Consistency of lime pastes and mortars. W. E. Emley. Proc. ASTN 23, Part II, 1440 (1923).
- Capping for compression specimens. H. D. Foster, J. Am. Ceram. Soc., 6, 623 (1923).
- Sulphur impregnated sandstone. D. W. Kessler. Stone, 44, (1923).
- Sand-lime brick. W. E. Emley. Proc. Building Officials Conference 122(1923).

- Factors affecting brick masonry strength. S.H. Ingberg. Proc. ASTM, 24, Part II, 909 (1924).
- Stucco investigations of the Bureau of Standards. J. C. Pearson. Proc. of Building Officials Conference 10, 143 (1924).
- Strength absorption and freezing resistance of hollow building tile. H. D. Foster, J. Am. Ceram. Soc., 7, 189 (1924).
- Properties of gypsum tile. J. M. Porter. Proc. ASTM, 24, Part II, 901 (1924).
- Effect of grading of sand upon the properties of sand-lime brick.

 H. V. Johnson. Proc. Sand-Lime Brick Assn., 28, (1924). Rock Products,

 27 No. 6, 31 (1924).
- Effect of pressure and steaming on the compressive strength of cement-lime mortars. H. V. Johnson, Proc. Sand-Lime Brick Assn. 52 (1924).
- The fire resistance of gypsum partitions. S. H. Ingberg. Proc. ASTM, 25, Part II, 299 (1925).
- Determining the weather resistance of stone. D. W. Kessler. Stone, 46, 351 (1925).
- Comments on the permeability of stone. D. W. Kessler. Stone, 46, July 1925.
- A study of practical problems for the marble industry. D. W. Kessler. Stone, 46, August 1925.
- The adhesion of gypsum plaster to various backings. J. P. C. Peter. Am. Architect, 128, September 9, 1925.
- The adhesion of gypsum plaster to concrete. Cement, Mill and Quarry, 32, (Oct. 20, 1925).
- Resistance of marble to various salt solutions. D. W. Kessler. Through the Ages, 3, (1926).
- Cleaning materials for marble. D. W. Kessler. Through the Ages, 3, Part I, March 1926; 3 Part II, April 1926; 4, Part III, June 1926; Part IV, August 1926.
- Steam cleaning a stone building. H. H. Dutton. Am. Architect June 20, 1926.
- Discussion of specification requirements for common brick. C. O. Christiansen. Am, Architect, 130, 23, (1926).
- Removal of stains from marble. D. W. Kessler. Through the Ages, $\frac{14}{2}$, September 1926; Arch. and Bldg., October 1926.
- Some physical properties of sand-lime brick. H.V.Johnson. Proc. Sand-Lime Brick Assn., 61 (1926).

- Lime mortar bricks versus sand-lime bricks. H. V. Johnson, Proc. Sand-Lime Brick Assn., 53 (1926).
- The Bureau of Standards and its work on sand-lime brick. Proc. Sand-Lime Brick Assn. (1927).
- Bases for specification and building code requirements for building bricks. S. H. Ingberg. Proc. 23rd Annual Meeting of Sand-Lime Brick Association, 78 (1927).
- Removal of stains from marble. D. W. Kessler. Through the Ages, 4, January 1927.
- Development of steam cleaning process. H. H. Dutton, Stone, 48, 225, April 1927, and 288, May 1927.
- Effect of workmanship on the strength of brick masonry. J. W. McBurney. Am. Architect, 132, 613, (1927).
 - The strength of solid and of hollow walls of brick. A. H. Stang. Ceram. Age, 198 December 1927.
 - Adhesion of plaster and stucco to hollow building tile. J. A. Murray and H. D. Foster. Am. Architect, 132, 839, (1927).
 - Effect of strength of brick on compressive strength of brick masonry. J. W. McBurney. Proc. ASTM, 28, Part II, 605 (1928).
 - The development of an apparatus for wear tests on flooring materials.

 D. W. Kessler. Proc. ASTM, 28, Part II, 855 (1928).
 - Wet Walls and efflorescence. L. A. Palmer, Am. Face Brick Assn. (See Structural Clay Products Institute) (1928).
- Bond between concrete and hollow tile. J. C. Oleinik. Eng. and Contr., 67, 19 (1928).
- Strength of brick in tension. J. W. McBurney. J. Am. Ceram. Soc. II, 114 (1928).
- New Construction data on brick walls. A. H. Stang. Am. Contractor, July 30, 1928.
- Limes, structural cements and plasters. P. H. Bates and J. M. Porter.
 Survey of American Chemistry, Third Annual. (Chemical Catalog
 Company) (1928).
- The water absorption and penetrability of brick. J. W. McBurney. Proc. ASTM 29, Part II, 711 (1929).
- Absorption and strength of commercial sand-lime brick. H. F. McMurdie. Proc. Sand-Lime Brick Assn., 12 (1930); Rock Products 32, No. 24, 67 (1929).
- Tests of elastic caulking compounds. H. H. Dutton. Proc. ASTM 29, Part II, 954 (1929).

- The physical properties of commercial cast stone. J. Tucker, Jr., and G. W. Walker, Proc. ACI, 25, 501 (1929).
- The compressive and transverse strength of brick. J. W. McBurney. J. Am. Ceram. Soc. 12, 217 (1929); also BS J. Research 2, 821 (1929). RP59.
- Some results of freezing and thawing tests made with elay brick. L. A. Palmer and J. V. Hall. Proc. ASTM 30, Part II, 767 (1930).
- The resistance of stone to frost action. D. W. Kessler. Proc. New Inter. Assn. Testing Materials, Group B, 37 (1930).
- Tests for weathering characteristics. D. W. Kessler. Rock Products 33, (1930).
- The relation of Brinell hardness and transverse strength to the compressive strength of building brick. J. W. McBurney. J. Am. Ceram. Soc., 9, 823, (1930).
- Specifications for hollow masonry units. D. E. Parsons. Proc. ASTM, 31, Part II, 595 (1931).
- The weathering of structural clay products: A review. J. W. McBurney. Proc. ASTM, 31, Part II, 745 (1931).
- Weathering test procedures for stone. D. W. Kessler. Proc. ASTM, 31, Part II, 799 (1931).
- Bibliography on weathering of natural stone. D. W. Kessler. Proc. ASTM, 31, Part II, 804 (1931).
- Bibliography on the weathering of structural clay products. D. E. Parsons. Proc. ASTM, 31, Part II, 825 (1931).
- Weathering of stone. D. W. Kessler. Am. Architect, 28, February 1931.
- Water penetration through brick-mortar assemblages. L. A. Palmer. J. Clay Products Inst. 1, 19, September 1931.
- The use of clay products in sound insulation. V. L. Chrisler. J. Clay Products Inst. 1, 31, September 1931.
- Volume changes in brick masonry materials. L. A. Palmer. J. Am., Ceram. Soc., 14, 541, (1931); also BS J. Research 6, 1003 (1931) RP321.
- The physical properties of cast stone. J. Tucker, Jr., G. W. Walker, and J. A. Swenson. Proc. ACI, 28, 243 (1931); also BS J. Research 7, 1067 (1931) RP389.
- Results of freezing and thawing tests of sand-lime brick. H. F. McMurdie. Rock Products, 34, No. 12, 53 (1931).

- The transmission of water through brick masonry. L. A. Palmer. Architectural Forum 56, 103, (1932).
- The color range of common brick, J. W. McBurney, J. Clay Products Inst., 1, 31, June 1932.
- The rate of stiffening of mortars on a porous base. L. A. Palmer and D. A. Parsons. Rock Products, 35, 18 (1932).
- Discussion of "Development in reinforced brick masonry." J. W. McBurney, Proc. Am. Soc. Civil Engine. (American Society of Civil Engineers), 59, 1344, (1933).
- The strength, water absorption and weather resistance of building bricks produced in the United States, J. W. McBurney and C. E. Lovewell. Proc. ASTM, 33, Part II, 636 (1933),
- Permeability tests of 8 inch Wallettes. L. A. Palmer and D. A. Parsons. Proc. ASTM 34, Part II, 419 (1934).
- Size and weight of building brick produced in the United States. J. W. McBurney, Industrial Standardization, American Standards Association, 10, (1935).
- Comparison of natural weathering with laboratory tests of clay brick. D.E. Parsons. Proc. ASTM 35, Part I, Appendix II, 252 (1935).
- The relation of freezing and thawing resistance to physical properties of clay and shale building brick. J. W. McBurney, Proc. ASTM, 35, Part I, Appendix I, 247 (1935).
- A test procedure for plastic caulking materials. D. W. Kessler, Proc. ASTM 35, Part II, 581 (1935).
- Water absorption of building brick. J. W. McBurney. Proc. ASTM 36, Part I, 260 (1936).
- Transverse and compressive strength of bricks. J. W. McBurney. Proc. International Assn. Testing Materials, London Congress, 388 (April 19-24, 1937).
- Locating the causes of rain penetration of brick walls. D. E. Parsons. Building Economy and Modern Builder (See Structural Clay Products Institute) 12, 5 (1937).
- The wick test for efflorescence of building brick. J. W. McBurney and D. E. Parsons. Proc. ASTM, 37, Part II, 332 (1937). Also J.Research NBS 19, No. 1, 105, (1937). RP1015.
- Brick laying to avoid leaks. D. E. Parsons. Am. Builder, 59, 76 (1937).
- A further study of the water penetrability of clay and shale building brick, J. W. McBurney and A. R. Eberle. J. Am. Ceram. Soc., 17, No. 5, 210 (1938).
- The freezing and thawing test for building brick. J. W. McBurney and A.R. Eberle. Proc. ASTM 38, Part II, 470 (1938).

- Comparison of standard tests on building brick by two laboratories. W. J. Krefeld and J. W. McBurney. Bul. ASTIV No. 96, 7, (1939).
- Plastic calking materials. D. W. Kessler. Review of Society of Residential Appraisers, 5, No. 2, (1939).
- Watertightness and transverse strength of masonry walls. D. E. Parsons. (Reprint of address delivered at Annual Meeting of Structural Clay Products Institute, October 5, 1939).
- An apparatus for determining Young's modulus of building materials by the dynamic method. F. B. Hornibrook. Bul. ASTI December 1939.
- Exterior paint investigation for masonry wall structures. Clara Sentel.

 National Paint Bulletin 4, No. 5, 10 (May 1940).
- Relation of water absorption and strength of brick to abrasive resistance.

 J. W. McBurney, R. H. Brink, and A. R. Eberle. Proc. ASTM, 40, (1940).
- Effect of water content and mixing time on properties of air-setting refractory mortars containing sodium silicate. R. A. Heindl and W. L. Pendergast. Bul. Am. Ceram. Soc. 19, 430 (November 1940).
- Outdoor exposure test of paints for masonry walls. Clara Sentel. Circular . No. 609, Natl. Paint, Varnish and Lacquer Assn. (January 1941).
- Statistical theory of the effect of dimension and of method of loading upon the modulus of rupture of beams. John Tucker, Jr., Proc. ASTM 41, 1 (1941).
 - Effect of freezing and thawing temperature in freezing-and-thawing tests of brick. J. C. Richmond and J. W. McBurney. Proc. ASTM. 41, 62 (1941).
 - Saturation coefficient values for brick by the absorption-boiling and the absorption-porosity methods. R. T. Stull and P. V. Johnson. Bul. ASTM No. 109, 17, (March 1941).
 - Relation between air and water permeabilities of building brick. R. T. Stull and P. V. Johnson. J. Am. Ceram. Soc. 20, 443, (Dec. 1941).
 - Relations between results of laboratory freezing and thawing and several physical properties of certain soft-mud bricks. J. W. McBurney. Proc. ASTM, 42, 837 (1942).
 - An improved gas-expansion volumenometer. J. C. Richmond, J. B. Petersen and W. H. Herschel. J. Am. Ceram. Soc., 26, 127 (1943).
 - Discussion of "Measurement of bond between bricks and mortar." J. W. McBurney. Proc. ASTN 43, 867, (1943).
 - Applying membrane waterproofing to plain concrete wall footings. J. DiStasio and C. C. Fishburn. J. ASTM, 15, 323 (Feb. 1944).

- The effect of certain variations in consistency and curing conditions on the compressive strengths of cement-lime mortars. G. J. Fink. Proc. ASTI 44, 780 (1944).
- Factors affecting the thermal expansion of concrete aggregate materials. W. H. Parsons and W. H. Johnson. J. ACI, 15, 457 (1944).
- Properties of highly hydrated dolomitic mesonry lines and certain of their cement-line mortars. G. J. Fink and E. Trattner. Proc. ASTM 45, 723 (1945).
- Permeability of brick-mortar assemblages. J. W. McBurney, M. A. Copeland and R. C. Brink. Proc. ASTM 46, 1333 (1946).
- Properties of Masonry Mortars of Several Compositions. David Watstein and N. A. Seese, Jr., Bul. ASTM, 147, 77 (Aug. 1947).
- Prevention of Dampness in Basements. C. C.Fishburn. J. ACI 19 (6) 421, February 1948.
- Discussion of "Factors in the resistance of brick masonry walls to moisture penetration" C.C.Fishburn and J. W. McBurney, Proc. ASTM, 48, 1046-47 (1948).
- Terrazzo as affected by cleaning materials. J. ACI, 20, No. 1, Sept. 1948.
- Stone wall exposure test, D.W. Kessler and Ross E. Anderson, Stone 70, No. 4, April 1949.
- A new durability test for marble. D. W. Kessler, ASTM Bul. No. 159, July 1949.

ADDRESSES

- American Architect, Hearst Magazine, Inc., 572 Madison Ave., New York, New York. (no longer published).
- American Builder, 105 West Adams Street, Chicago 3, Illinois.
- Ama Ceram. Soc.--American Ceramic Society, 2525 N. High St., Columbus 2, Ohio.
- ACI-American Concrete Institute, 18263 W. McNichols Rd., Detroit 19, Mich.
- American Contractor, (no longer published).
- American Face Brick Association—Structural Clay Products Institute, 1520 18th St., N. W., Washington 6, D. C.
- American Institute of Architects, 1741 New York Ave., N. W., Washington 6, D.C.
- ASTM—American Society for Testing Materials, 1916 Race Street, Philadelphia 3, Pennsylvania.
- American Society of Civil Engineers, 33 W. 39th St., New York 18, N. Y.
- American Standards Association, 70 E. 45th St., New York 17, N. Y.
- Architectural Forum, 350 Fifth Ave., New York 1, N. Y.
- Arch, and Bldg.,—Architecture and Building, Wm. T. Comstock Co., 28 Warren St., New York, N. Y. (no longer published).
- Autoclave Building Products Association, Mr. Carl Miller, Secy-Treas., c/o Pacific Brick Company, Pacific, Mo.
- Building Economy and Modern Builder—Structural Clay Products Institute, 1520 - 18th St., N. W., Washington 6, D. C.
- Building Officials Conference of America, Inc., Pres., Mr. Albert Baum, 426 City Hall Bldg., St. Louis, Missouri.
- Cement, Mill and Quarry, Complete Service Publishing Co, now Pit and Quarry, 538 S. Clark St., Chicago 5, Illinois.
- Ceramic Age, The Ceramic Publishing Co., 421 Parker St., Newark 4, N. J.
- Chemical Catalog Company, now Reinhold Publishing Co., 330 W. 42nd St., New York 18, New York.
- Civil Engineer—American Society of Civil Engineers, 33 W. 39th Street, New York 18, New York.
- Clay Products Institute—Structural Clay Products Institute, 1520 → 18th St., N. W., Washington 6, D. C.
- Engineering and Contracting, Gillette Publishing Co., 401 W. Madison St., Chicago, Ill. (no longer published).

ADDRESSES

- Industrial Standardization, American Standards Association, 70 E. 45th Street, New York 17, New York.
- National Lime Manufacturers Association, 927 15th St., N. W., Washington, 5, D. C.
- National Paint Bulletin, Franconia, Alexandria, Virginia. (no longer published).
- National Paint, Varnish and Lacquer Association, 1500 Rhode Island Ave., N. W., Washington 5, D. C.
- New International Association for Testing Materials, Leonhard-strasse 27, Zurich, Switzerland.
- Review of Society of Residential Appraisers, 333 N. Michigan Ave., Chicago, Illinois.
- Rock Products, Tradespress Publishing Corp., 309 W. Jackson Boulevard, Chicago, Illinois.
- Sand Lime Brick Association, now known as Autoclave Building Products Association, Mr. Carl Miller, Secy-Treas., c/o Pacific Brick Company, Pacific, Missouri.
- Stone, Stone Publishing Company, Inc., 191 Main Street, Ossining, New York.
- Through the Ages, National Association of Marble Dealers, Cleveland, Ohio. (no longer published).