

FILE NAME: CERAMICS (CER)

DATE: 1933 Feb

DOC#: CER001

DOCUMENT DESCRIPTION: Journal Abstract - Dust Hazard in Rock

Book Reviews

Men of France and of Industries Related to Them. (Les hommes de France et des industries s'y rattachant.) J. book contains (1) a list of French associations and glass, (2) all French trade marks, (3) a list of books a classification of natural and artificial chemical air English and German translations, and (5) ad-wholesale and retail houses dealing with glass and

M. V. KONDOIDY

neral. P. P. BUDNIKOFF. State Scientific Tech-1932. 336 pp. 206 illustrations. This volume-ic materials, their chemical-physical properties, n other countries, mining methods, and methods-terials (clays and kaolins) B. describes the theory-lymorphic metamorphosis. A chapter on modern-termination of hydrogen ion concentration and-ramics. In a chapter on shortening substances, minium, chromite, graphite, silicon carbide, etc., and pulverization gives the theoretical funda-hinery used in the U. S. and Germany. Another-bodies. Many references to English, French, e author has tried to combine theory with prac-ievvements of science and technique in ceramics. to ceramic literature. A second volume is in

A. A. ZAKHAROFF

PATENTS

in ceramics. E. A. STEWART. U. S. 1,884,346,

M. CROWLEY (Henry L. Crowley & Co., Inc.).-method of producing a noncorrosive ceramic com-ized material and binder free from alkali and-being freed from alkali by heating below the

CERAMIC ABSTRACTS¹

Compiled by the

AMERICAN CERAMIC SOCIETY

ROSS C. PURDY, Editor

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Vol. 12

February, 1933

No. 2

Abrasives

Preparing surfaces on lithographic plates. C. MASON WILLY. *Abrasive Ind.*, 13 [8], 16 (1932); for abstract see *Ceram. Abs.*, 11 [11], 547 (1932). E.P.R.

Efficiency of abrasives in working glass. JACQUES WOLF. *Glass Ind.*, 13 [12], 189-92 (1932).—Most mechanical abrasive working of glass is done with sand of vary-ing grain size and pumice stone of various degrees of fineness, and in special work, emery and silicon carbide are employed. Grindstones of three classes, rotating disks, natural stones, and artificial products, play a prominent part in the mechanical working of glass. The hardness of a grindstone depends on various factors, (1) the nature of the abrasive, (2) grain size, (3) bond resistance, (4) distance between the grains, and (5) pore size. Applied technique affecting the output of the grindstone is considered from the standpoints of (a) matter to be treated, (b) kind of work, (c) method of working, (d) hand and automatic operation, (e) speed of rotation, (f) fitting up, (g) the upkeep, and (h) the wear. A full discussion of these points is presented. E.J.V.

Adhesion of glue and fused alumina abrasives. IV. HENRY R. POWER. *Metal Cleaning & Finishing*, 4 [11], 611-12 (1932).—Glue briquet tests for adhesiveness made on three types of abrasive, untreated, glossy type, and surface tenacity type, showed that the latter was superior both before and after exposure. This type of abrasive is also superior in capillarity tests. All three types are wet by liquid oil at about the same rate. For Part III see *Ceram. Abs.*, 11 [3], 146 (1932). E.J.V.

Longer service from costly machine shop tools. H. J. CHAMBERLAND. *Popular Sci. Monthly*, 120 [1], 90-92 (1932).—C. describes a grinding fixture for holding planer knives while being sharpened. Methods of grinding stellite and cemented tungsten-carbide tools are also described. Grinding wheels of the proper size, hardness, and grain size are included in each case. Illustrations and diagrams. F.G.H.

PATENTS

Universal drive for grinding machines, etc. ADOLPH STORM AND THOR THORSEN (Storm Mfg. Co., Inc.). U. S. 1,888,480, Nov. 22, 1932.

Method and means for dressing grindstones. W. N. BAKER AND R. A. MASTEN (International Paper Co.). U. S. 1,888,614, Nov. 22, 1932.

Grinding machine. WILLIAM ARTER AND W. F. FRASER (Arter Grinding Machine Co.). U. S. 1,888,710, Nov. 22, 1932. F. J. JESCHKE (Micromatic Hone Corp.). U. S. 1,889,664, Nov. 29, 1932. P. H. HUTCHINSON (General Motors Corp.). U. S. 1,890,854, Dec. 13, 1932.

Emery or abrading wheel. J. R. MITCHELL. U. S. 1,890,401, Dec. 6, 1932. A grinding wheel having radially spaced grinding members, has the inner side wall of one grinding member shaped to provide pockets to receive abrasive, the extreme inner edge portion of the side wall forming each pocket being hook-shaped and being projected forwardly.

Dressing tool. M. J. WALSH. U. S. 1,890,481, Dec. 13, 1932.

Buffing wheel. B. H. DINTZ. U. S. 1,890,502, Dec. 13, 1932.

¹ The abbreviation (C.A.) at the end of an abstract indicates that it was obtained from *Chemical Abstracts* by cooperative agreement.

The bold-face number following the journal name is the volume, the issue number is in brackets followed by the page numbers, then the year in parentheses.

DEFENDANT'S

EXHIBIT NO. 6
FOR IDENTIFICATION

DATE: 2-19-99 RPT: 6

Cutting heating and compressed air cost with waste-heat boilers. THOMAS R. SHAVER. *Heating, Piping, Air Conditioning*, 4 [11], 728-30 (1932).—Illustrated. J.L.G.

Decomposition of sodium carbonate in steam boilers. REINHOLD F. LARSON. *Trans. A.S.M.E.*, 54 [16], 171-79 (1932); for abstract see *Ceram. Abs.*, 11 [9], 506 (1932) E.P.R.

Corrosion from flue gases. ANON. *World Power*, 27 [2], 122 (1932), abstracted in *Metals & Alloys*, 3 [10], 291 (1932).—Sulfur and moisture inevitably occur in flue gases. When gases are reduced to the dew point of the vapor, the combination of the S (whether existing as SO₂ or SO₃) will occur, forming a corrosive acid solution. To avoid such corrosion heat the feedwater to at least 100°F, preferably 120°F, with cast-iron economizers, and with steel, 130 to 140°F. The decrease in the efficiency of the heat exchange is less serious than occurrence of corrosion. E.P.R.

Boring map for clay and loam deposits. ANON. *Tonind.-Ztg.*, 56 [78], 973-74 (1932).—In this paper the carrying out of borings and the designing of a map showing the results are described. W.M.C.

Rehabilitation and improvement of power plants. CHARLES W. E. CLARKE. *Power Plant Eng.*, 36 [18], 699-702 (1932).—Better combustion, heat reclamation, higher pressures, and greater thermal efficiency and output are results to be sought in consideration of future power-plant construction. Modernization of many present power plants is considered. E.P.R.

Control of the silicosis hazard in the hard rock industries. II. Investigation of the Kelley dust trap for use with pneumatic rock drills of the "jackhammer" type. THEODORE HATCH, GEORGE S. KELLEY, AND J. WILLIAM FERNEL. *Jour. Ind. Hygiene*, 14 [2], 69 (1932); *U. S. Pub. Health Eng. Abs.*, 12 [1HS:4], 1 (1932).—The dust-collecting efficiency of the Kelley trap for use with pneumatic rock drills of the jackhammer type is investigated. The Kelley trap is a metal chamber designed to enclose the drill steel at the rock surface from which the dust is removed by an air stream which discharges into a trap. The minimum rate of air flow necessary to keep the dust concentration at the breathing zone of the drill operator safe was investigated and found to be 60 cu. ft./min. Check tests were run with the trap operating at that speed in connection with two actual jobs, and satisfactory results were obtained. Static suction requirements for various rates of air flow were also determined. H.F.V.

Dust hazard in rock products industry. ANON. *Rock Prod.*, 35 [21], 14-17 (1932).—A digest is given of the papers and discussions at the National Safety Congress at Washington, D. C. Only dusts containing silica are dangerous as causes of tuberculosis or silicosis. W.W.M.

Proposed revision of the Constitution and By-Laws of the American Ceramic Society. ANON. *Bull. Amer. Ceram. Soc.*, 11 [12], 270-72 (1932).

Trade and technical association activities. EMERSON P. POSTE. *Bull. Amer. Ceram. Soc.*, 11 [12], 265-68 (1932).

Technical organizations of the ceramic industry. L. DESMARQUEST. *Céramique*, 35 [533], 183-86 (1932).—A description is given of the Official Test Laboratory (Laboratoire Officiel d'Essais), the Technical Service (Service Technique), and the Assn. of Technical Instruction in Ceramics (l'Association d'Enseignement Technique Céramique). A.E.R.W.

Developments in the ceramic industry. ANON. *Ceram. Ind.*, 19 [5], 219 (1932).—*Ceramic Industry* presents the developments that have been made during the past year in the ceramic industry. W.W.M.

Production of ceramic ware. FERRUCCIO PALAZZI. *Ind. Silicati*, 10 [9], 13-14 (1932).—Present-day production of ceramic ware in Italy should be separated into the three following types: (1) popular production carried on by the peasants or country people in a small way when they are not occupied by farm work, thus furnishing a means of expression to the artisan in the fashioning of simple articles or ornaments; (2) industrial production on a large commercial scale; and (3) ceramic art production which should be brought back once more to the highest plane of Italian aesthetic, cultural, and social activity. A piece of ceramic art should not be valued as an object to sell, but as an enduring expression of the time and race. M.V.K.

Industrial coöperation in the field of applied science. P. BROCKHAUS. *Tonind.-Ztg.*, 56 [88], 1085-86 (1932).—The necessity of carrying out research work supported by the industry is pointed out. W.M.C.

Purchase of mechanical equipment for mines. D. S. HUNES. *Can. Mining Met. Bull.*, No. 218, pp. 764-74 (1930).—Mechanical equipment plays an important part in mine operation and its purchase demands careful attention. The paper deals with

(1) the proper method of requisitioning among manufacturers for prices, delivery, and (5) insurance, inspection.

Unified bookkeeping system. ULRICI. *Keramos*, 11 [4-5], 81-1 are listed under the following headings: (4) other expenses, and (5) performance.

Bookkeeping and calculation. *Ztg.*, 56 [84], 1041-42 (1932).—Cost profit. See also *Ceram. Abs.*, 12.

Some application of industrial *Céramique*, 35 [534], 205-11 (1932) ceramic plant is explained in detail.

Example of gain-sharing on maintenance *Eng.*, 90 [11], 427 (1932) estimated cost is divided between

Are mergers a benefit to the *Clay Rec.*, 81 [5], 169-70 (1932).

Back to coöperation and common *81 [5], 166-67 (1932); Clay Work.* sound principles of doing business. Assn. convention.

Road to recovery. ANON. *B.-98 [5], 179-82 (1932).*—The report of the Brick Assn. held at French Lick, 1

ment of the trade of the brick industry. Ceramic engineer in Canada *Jour.*, 51 [47], 1166 (1930) —Cera-

Canadian industry.

Ceramics in Tonkin. V. CHARR. Ceramics in Tonkin are discussed, products manufactured.

Japanese glass bulbs. ANON. bulbs are being sold in this country. The foreign articles are of short life

price appeals to uninformed consumers of this country's demand; last year

Ceramic Association of New Jersey. A report of the fall meeting shows the

de-airing and types of equipment for clayworking, hydraulic refractory

Pottery and glassware shown at (1932).—New bodies and colors were held in New York City. The glass

legal liquor. Technical Congress of the Syn *Céramique*, 35 [532], 153-54 (1932)

Copenhagen British Exhibition. 24 pp. (Oct. 1, 1932).—The Danish p

local potteries supply the home market white tableware there is competition

industry is made, and an account of Impressions of the German Cer

Ztg., 56 [83], 1029-30; [85], 1053-34. Tribute to "Pat" Murphy. W. (1932).—A brief eulogy of Joseph Industries Assn. meeting, is given

Research activities in the mineral and A. H. EMERY. *Bur. Mines In*