PLAINTIFF'S EXHIBIT
PLI-17

CERAMIC ABSTRACTS

Compiled by

The American Ceramic Society

Volume 22, 1943

Ross C. Purdy, *Editor*

Mary J. Gibb
Virginia Benedict
Jane Holmes
} *Assistants*

Committee on Publications: J. D. Sullivan, *Chairman;* H. H. Blau, R. L. Stone, J. J. Canfield, Harry Thiemecke, R. C. Purdy

ABSTRACTERS

A. A. Ayars	M. V. Condoide	M. Hoseh	E. C. Pierce	M. A. Schwartz
L. R. Barrett	P. S. Dear	F. J. Hurlbut	Alexis Pincus	A. B. Searle
W. R. Beck	W. D. Foster	G. M. Hutt	M. E. Poor	Lucille Shattuck
A. C. Bevan	R. A. Gregory	G. A. Kirkendale	Katherine Reed	H. E. Simpson
R. H. Bollinger	Max Hartenheim	B. B. Lane	H. K. Richardson	L. E. Thiess
A. G. Bowman	F. G. Heck	E. D. Maher	Margaret Roach	Hans Thurnauer
R. G. Capell	R. A. Heindl	E. H. McClelland	B. C. Ruprecht	Samuel Zerfoss

Editorial Office: 2525 North High Street, Columbus 2, Ohio
Publication Office: 20th and Northampton Streets, Easton, Pa.

Ceramic industry in Sudeten Germany. ANON. *Keram. Rundschau*, 46 [44] 515–18 (1938).—The state of the ceramic industry in Sudetenland and its organization, output, and raw materials at the time of its return to Germany are discussed. M.V.C.

Comparison of methods for the determination of CO. F. H. GOLDMAN AND A. D. BRANDT. *Amer. Jour. Pub. Health*, 32 [5] 475–80 (1942).—The following methods for determining CO were compared: Hoolamite detector, palladium chloride ampoules, British palladium chloride method, Hopcalite indicator, iodine pentoxide, and pyrotannic acid. The results indicated that, if the time factor is considered, the Hopcalite indicator is the best, although in concentrations of 0.01 to 0.1% CO, the British palladium chloride method gave good results. The Hoolamite detector was considered the least satisfactory of all. Details of test procedures are given. B.C.R.

Control and collection of industrial dust: III. E. D. POWERS. *Rock Products*, 45 [9] 48–49, 51 (1942).—Recent developments in high-efficiency cyclones and the selection of the proper type are discussed. For Parts I and II see *Ceram. Abs.*, 21 [8] 175 (1942). B.C.R.

Correct power-station lubrication not based on rules of thumb. HOWARD COOPER. *Combustion*, 13 [7] 30–32 (1942).—C. reviews the principles underlying the lubrication of power-plant equipment and the various conditions that must be investigated by the lubrication engineer before prescribing the correct oil for the individual case. H.E.S.

Dust diseases. ANON. *Chem. Eng. & Mining Rev.*, 34 [405] 275–77 (1942).—The most frequent types of dust diseases, chemical and physical characteristics of dusts, and means of dust control are considered. B.C.R.

Dust problems in burning blast-furnace gas under steam boilers. A. R. MUMFORD. *Combustion*, 13 [11] 35–37 (1942).—A survey of a number of installations indicates that dirty gas, when not supplemented with other fuels, is satisfactory for burning under boilers, even with refractory settings. When supplementary fuel, such as oil or pulverized coal, is employed, the higher resulting gas temperature may cause the dust to fuse and produce slagging on the heating surfaces. In such cases, segregation of the burning zones is desirable. The cost of boiler cleaning, however, is usually much less than that of subjecting the gas to primary washing and appears to justify the use of dirty gas. H.E.S.

Grate temperatures a measure of ignition penetration. WALTER H. WOOD. *Combustion*, 13 [8] 31–32 (1942).—When the rate of ignition penetration of a stoker fuel bed is known, it is possible to apply air for combustion most effectively in each zone. A convenient means of ascertaining the ignition penetration is through the measurement of grate temperatures by means of thermocouples. Directions for their installation and use are given. H.E.S.

Guide for inventors. L. T. PARKER. *Combustion*, 13 [10] 47–49 (1942).—P. presents facts for engineers who contemplate applying for a patent. He points out the things that are and are not patentable and the various factors that govern patentability. Commonplace examples are cited, and each point is verified by reference to reports of higher court decisions as listed in the bibliography. H.E.S.

Importance of invention to the nation. H. A. TOULMIN, JR. *Chem. Industries*, 51 [6] 690–99 (1942).—The American and European patent systems are compared. The following points are discussed: economic importance of inventions, economics of inventions, results of inventions, public policy behind patents, England and colonial inventions, economic justification for patents, and patent rewards. T. attributes America's great industrial and economic development to her unique patent system. E.D.M.

Increased steel-mill production by protective lubrication. ANON. *Lubrication*, 28 [7] 73–84 (1942).—The Texas Co., New York, N. Y., has enhanced the usefulness and met the demands of the modern steel mill's production line by providing protective lubrication. Factors which promote effective maintenance and methods of extending the us life of steel-production machinery are discussed. H.E.

Is acute lobar pneumonia a complication of silico D. C. PIZZPONT. *Jour. Ind. Hyg. & Toxicol.*, 24, 23 (Oct., 1942).—P. investigated the incidence and morta rate of acute lobar pneumonia in the northern coun of Michigan and Wisconsin where iron mining is the c industry. No incidence rates of value could be obtair but mortality tabulations from these counties sho lower rates than those occurring in the U. S. as a wh In the Gogebic range in Gogebic County, Mich., and Iron County, Wis., mortality rates for undergro workers are practically the same as for surface worker the same age. In the iron-ore mines of the Upper Pe nsula, 20 years of underground work were required silicotic nodules to become large enough to be seen on X-ray film, and miners with silicosis who contrac pneumonia did as well as those with no silicosis. Worl with advanced silicosis often recovered from the pn monia without any specific treatment. The 18 pn monia deaths occurring among 6000 employees of mining companies during a 4-year period would giv yearly mortality of 65 per 100,000, which is the same that for policemen, who have no silicosis. P. conclu that acute lobar pneumonia is an infectious, communica disease but not an industrial disease. K.F

Low draft loss flue-dust collectors at Conners C powerhouse. H. E. MACOMBER. *Combustion*, 14 30–35 (1942).—M. describes the development work le ing up to the present design of wedge-type flue-dust col tor, operating on the Van Tongeren principle, which is stalled on five of the stoker-fired boilers. Test results included. H.E.S

Modern turbine developments. J. R. CARLSON. *C bustion*, 13 [9] 43–48 (1942).—C. reviews the progres steam-turbine design as closely related to advances metallurgy, discusses creep, shows how expansion is c pensated, explains blade resonance, describes means handling the problem of moisture and blade erosion in low-pressure stages, and illustrates how cyclic vibrati of the generator are overcome. H.E.S

1825-lb. pressure topping unit with special reference forced-circulation boiler. F. S. CLARK, F. H. Ros GRANTS, AND W. H. ARMACOST. *Combustion*, 14 [0] 32 (1942).—A general consideration and certain design det are presented of the new high-pressure C-E Contro Force-Circulation steam-generating unit which is nec double the capacity of any installed abroad. Recent op ating and performance data are also included. H.E.S

Pennsylvania post-graduate course in industrial me cine and hygiene. ANON. *Ind. Med.*, 11, 604 (D 1942).—During January and February an advanced cou in industrial medicine and hygiene is being presented Philadelphia under the auspices of committees of cou and state medical societies. The February sessions are voted to dust hazards (minor organic and inorga to silica and the silicates, including asbestosis and silico and to pottery-making as a siliceous occupation. K.F

PATENTS

Artificial stone making method. P. W. JONES AND J SWEZEY (Rostone Corp.) Can. 419,055. Dec. 1, 1 May 29, 1930).—A method of producing synthetic st comprises mixing finely divided anhydrous aluminosili material, aluminosilicic acid material, and an alkal earth base, wetting thoroughly with water, forming, subjecting to a moist heat. C.M.F

Synthetic ore. H. M. KRAMER (Bethlehem Steel C U. S. 2,308,984, Jan. 19, 1943 (June 14, 1941).—A s thetic ore comprising fine iron oxide containing mate substantially free of silica and carbon intimately m with limestone to aid in fusion and fused and cast in m as desired.