STATE OF OREGON
DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES
329 S.W. OAK ST.
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THE ORE.-BIN

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NOTICE

Demands for this monthly publication have been so great that the facilities of the Department for issuing it are beginning to be sorely taxed. We are also beginning to feel the pinch of the cost of postage involved in sending out nearly a thousand of these each month.

In the interest of economy and with the idea that there may be a goodly number who receive this and who may not be particularly interested, we are asking that each of you drop us a penny postal card and state your desire to keep on receiving this publication.

This notice will not appear again and those who have not indicated their interest in the publication or their wish to be kept on the list will be dropped after this issue.

SILICEOUS ORES WANTED.

The Department has just received a communication from the American Smelting and Refining Company, with smelters at Tacoma, Washington, and Selby, California, indicating that the A.S.& R. is desirous of obtaining for their Tacoma plant a series of shipments of siliceous ore. They are anxious to know if there is present an ore reserve of this type of material, and mentioned 200,000 to 300,000 tons, which would assure a supply for a considerable period of time.

Most shipments of ores and concentrates from Oregon mines are of basic type, containing a high percentage of sulphide. A considerable amount of silica must be used in the smelter burdens and this can be either in the form of raw silica added at the smelter, or in the form of siliceous or quartz-bearing high grade ores or concentrates. As flotation concentrates are altogether of sulphide content or basic nature, the smelting company desires shipments of direct shipping ore containing considerable quartz, and the communication states that to get this silica the company might make a concession in smelter charges to the shipper. They might even take over and operate a property which suited their needs.

There may be properties in this state which would normally produce ore of marginal grade,and thus could not be operated at a profit, but which, if some concessions were made in smelting charges, could be developed and operated at a profit. It is this type of property which should receive attention in the light of the above desire for siliceous direct shipping ore.

MINERAL WORLD.

A new publication devoted to mining in the West made its appearance with its July 1939 issue. Its title is "Mining World". It is published monthly by Miller Freeman Publications, with Portland address at 1220 Southwest Morrison Street. The company maintains other offices at Seattle, Los Angeles and San Francisco. The "World" is printed on good paper, in clear type, carries a large number of cuts illustrative of mining and metallurgical activities, pertinent articles of interest to mining people and mining news of the western states. The August issue carried forty pages of material, and among others a record of the recent A.I.M.E. meeting in San Francisco, an article entitled "The Problems of Mining", another by E. L. Oliver of San Francisco on new engineering developments, one by Herbert Hoover on "The Engineer and Unemployment", an article on Phelps Dodge, another on Alaska Juneau, and an excellent write-up on Oregon dredging.

The new publication seems to be well balanced, and has our compliments and best wishes.

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SHORTITE.

A NEW MINERAL.

The following item is reprinted from "The Mining Journal" of July 15, 1939:

A new mineral, officially named shortite, was announced by the Geological Survey, United States Department of the Interior. The new mineral is composed of a double carbonate of sodium and calcium and was found and identified by J. J. Fahey, chemist, in the geological survey laboratory. It was discovered as disseminated, well formed crystals in sections of core from the John Hay oil and gas well, drilled by the Mountain Fuel Supply Company on leased government land in Sweetwater county, Wyoming, at depths of 1,250 and 1,800 feet. Shortite was so named in honor of Dr. M. N. Short, a former geologist of the survey, who is now professor of optical mineralogy at the University of Arizona.

If the new mineral should ever be found in sufficient quantities, geological survey officials say it might be adapted to use in glassmaking and ceramics work. Additional samples for further laboratory examination will be collected. The department reports that this find will probably be one of the few mineral discoveries for the year. The earth has been searched so thoroughly that during the past two years only about twenty new minerals were discovered in the entire world. A full technical description of the new mineral will be published in "The American Mineralogist."

U. S. BUREAU OF MINES ESTABLISHES NEW STATION.

The U. S. Bureau of Mines has established an experiment station at Pullman, Washington, in connection with the College of Mines, Washington State College. The station is in charge of Mr. Henry A. Doerner. A temporary station has been established at Pullman for several years, dealing principally with experiments on the production of metallic magnesium from Stevens County magnesite ores. It is understood that work will be continued on this project and on other projects requiring electro-metallurgical solution.

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A CORRECTION.

In the last issue of the Ore.-Bin, in the paragraph where mention was made of the Cornish pump, some old-timers who read this blurb may have wondered what the writer meant by a "thirty-foot column line and pump rod going all the way down the shaft." That would have been SOME Cornish pump. Obviously, it should have been thirty-inch column line, which is a pretty good sized pump column at that. Most of them were somewhat smaller. Someone has written - we cannot recall where - a story of the Cornish pump as developed in Cornwall, and it is well worth reading.

We may take pardonable pride in acknowledging receipt of a surprising number of kindly comments on the last issue of the Ore.-Bin. . . . . but isn't it just as well to get away now and then from the commonplace, stereotyped method of doing things, and express ourselves humanly and intimately, perhaps even breezily, rather than in the cut-and-dried manner of the news reporter?

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WASHINGTON FLOOD CONTROL.

The U. S. Engineering Department, Bonneville District, is preparing plans for the Walla Walla flood control project. Main items are a $900,000 earth-fill dam and $100,000 for intake canal construction.

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INTERESTING LIMESTONE DEPOSIT.

We know of a deposit of limestone and travertine in eastern Oregon which would deserve serious consideration by any group or individual desiring to go into the fertilizer business with a relatively small amount of money. The deposit is well located within reasonable reach of a large area of farming, which usually makes use of this type of material, and should be worthy of serious consideration. The rock is high grade stuff and can be handled by open pit methods, starting in with a small power shovel.

Anyone interested may obtain details by writing to this office. We shall be pleased to put inquirers in communication with the owners of the property.

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USE OF SODA ASH INSTEAD OF MANGANESE.

(Digested from Mineral Trade Notes, volume 9, no. 2, August 19, 1939).

Germany's mineral resources and reserves are a matter of considerable concern as a result of the recent military activity in Europe. Iron and steel are the inanimate sinews of war.

Among the various problems of reducing iron ore to pig iron, that of eliminating sulphur is of considerable importance. Manganese is frequently used as a desulphurizing agent. Introduction of newly developed smelting processes in Germany permits the use of soda ash for the desulphurizing pig iron. It is reported that Germany's annual consumption of soda ash for this purpose already amounts to approximately 80,000 metric tons. This process makes possible the more economic use of domestic low-grade iron ore with high silicic acid content and greatly reduces the need for manganese. The soda ash method of desulphurization will allow Germany to produce high-grade steel during war time. It also produces a slag of much finer quality, free of the undesirable manganese and, therefore, much more valuable for the manufacture of cement and burnt bricks. The cost of soda ash is admittedly higher than that of manganese, but the higher cost is more than offset by the economies resulting from the greater effectiveness of soda ash as a desulphurizing agent, decreased consumption of coke in the blast furnace, cheapening of the mixture, increased output of blast furnace, and improved commercial utilization of the soda slag.

The chief and apparently only disadvantage in the use of soda ash in place of manganese for desulphurizing iron is that somewhat larger amounts of ferromanganese are required for deoxidation. However, processes designed to reduce the consumption of manganese for deoxidation are now in the course of development.

Although data are unavailable, there has been a marked increase in the consumption of salt for manufacturing soda ash since 1937-38 due in large measure to the rapidly growing use of soda ash for desulphurizing iron.

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INTERESTING METALLURGICAL REPORTS.

The following are references to recently published articles on various phases of metallurgy. Abstracts of these various papers are on file at the head office of the Department, 329 S.W. Oak Street, and any parties interested in seeing these may call there.

Metals and Alloys - p.403 (July 1939) German.
Methods of recovery of Al_2O_3 from clay, etc.
A survey of patent literature.
A commercial process described.

Metals and Alloys - p.403 (July 1939)Swedish.
Modern Electric Smelting.
Iron Electric Smelting.
Iron Equal to Charcoal Iron.
2400-3000 kw.-hr./metric ton.
Can compete with blast furnace when 1 kw.-hr.= 2.2 lbs. of coke.
Low grade coke and breeze.
Plants in use in Norway, Sweden, Finland, Italy, and Japan.

A.I.M.E. Mining Technology (January 1938) T.P.877.
Selective Electrostatic Separation.
Very valuable paper with values and discoveries.

A.I.M.E. Metals Technology (February 1939).
Direct Production of Metallic Zinc by Electrothermic Process.

A.I.M.E. Mining Technology (July 1938) T.P.959.
Special Methods for Concentrating and Purifying Industrial Minerals.

A.I.M.E. Mining Technology (May 1938) T.P.901.
65-mesh Grinding in Closed Circuit with Stainless-Steel Screens.

Metals and Alloys - p.404 (July 1939) French.
Present Status of the High-Frequency Furnace in Industry.
Rev. Gen. Elec., vol.45, January 21, 1939.

Metals and Alloys - p.451 (July 1939)
Applications of Supersonic Waves.
Metallurgist (Suppl.Engineers) December 1938 - pp.177-179.
Review.

Metals and Alloys - p.202 (April 1939) - Supersonics.
Use of an Alternating Pressure Field in the Wet Preparation of Ores.
Metall.u.Erz, vol.35, no.18, 1938, pp.471-474.

Metals and Alloys - p.202 (April 1939)
Electrostatic Separation III.
The Process, Recently Improved, Now Invites Wider Application.
From "Eng.Mining J.", December 1938, pp.41-45.

Chemical and Metallurgical Engineering (July 1939)
p.343 - Production of Low Temperature Coke, by C. E. Lesher.

Chemical and Metallurgical Engineering (May 1939)
p.273 - Electric Carbonization of Coal.

Chemical and Metallurgical Engineering (May 1939)
p.269 - Electric Furnace Production of Phosphate.
by Victor Chemical Works.

Readers Digest - (July 1939)
p.81 - Take a Look at the Future.
High Frequency Waves, Infra-red Rays, etc.

Chemical and Metallurgical Engineering (March 1939)
p.124 - Air Flotation Statement of Their Table,
Ad. by Sutton, Steele and Steele, Inc., Dallas, Texas.

Abstract in Science News Letter, July 22, 1939, p.57.
(July (?) 1939 issue of Civil Engineering A.S.C.E.
Wind Tunnel for soil and sand classification.
May have practical application in ore concentration, especially in dry countries.
Cheap to Install. See also Science News Letter, July 22, 1939, for digest.

May 1938. U. S. Bureau of Mines, R.I. 3400, p.51.
Sonic Flosculator as a Fume Settler.

May 1938. U. S. Bureau of Mines, R.I. 3427, p.31.
Flotation of Feldspar - Quartz.

October 1938. U. S. Bureau of Mines, R.I. 3419, p.7.
Production of Pure Sponge Chromium at Low Temperatures.
Very Interesting.

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