

mos. The Thule people made their way across Arctic Canada to Greenland during the course of several centuries.

These people who once lived on Cornwallis Island lived in small villages of ten or a dozen houses. They built permanent homes with stone walls and floors and

having roof supports and beams of whale bone.

Some were evidently accomplished primitive artists. In addition to the interesting view of the whale hunt, drawings of caribou and geese were found.

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MINERALOGY

U. S. Manganese Process

► IMPROVED processes for obtaining manganese for steel-making from domestic low-grade ores give promise of freeing America from dependence upon foreign supplies, particularly from Russia.

Importations from all sources now total over 1,500,000 tons a year, and the domestic production is very small. Modern steels can not be made by known methods, except at greatly increased cost, without manganese. In prewar days, the principal source of manganese for American steel-makers was Russia. Now large quantities are obtained from India and Africa.

A process for recovering manganese from low-grade ores by leaching with waste pickle liquor, which is produced in large volume in certain steel manufacturing operations, was revealed recently by Richard D. Hoak, Mellon Institute, and James Coull of the University of Pittsburgh. A high-grade manganese concentrate can be recovered from the leach liquor.

The ore is ground to a fine size, then treated with the waste pickle liquor, the mixture being agitated. Some 95% of the manganese is extracted in a 15-minute period. After filtration, the filtrate is treated with calcium chloride. Calcium sulfate is filtered off. The filtrate from this operation is treated with pulverized high-calcium limestone to separate the iron in it. After the hydrated iron oxide is filtered off, the filtrate is treated with high-calcium lime to precipitate the manganese. The result is hydrated manganese oxide.

The oxide ores of manganese are by far the most important commercially, Messrs. Hoak and Coull stated. The materials now

used in steel-making are largely ferromanganese, spiegeleisen and silicomanganese. The action in steel-making is both as a deoxidant and as an alloying element. As an alloying element, manganese imparts desirable physical properties to a wide range of commercial steels.

A great deal of research has been devoted to the development of processes for utilizing low-grade manganese ores. America has an abundant supply. Dependence on imported high-grade ore from distant parts of the world in times of great emergencies is highly hazardous. Manganese is rated in the United States as a strategic metal. Manganese ore-dressing methods constitute a major project of the U. S. Bureau of Mines.

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MEDICINE

Dramamine Relieves Migraine and Nausea

► DRAMAMINE, the new drug that both prevents and relieves seasickness, may help patients with migraine headaches and mental patients with nausea after electric shock treatments.

This possibility appears in satisfactory results with the drug for both conditions reported by Dr. Edward F. Kerman of Baltimore to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Oct. 15), in Chicago, Ill.

The migraine-relieving effect was discovered accidentally. The father of one of the patients getting electric shock treatment was a long-time migraine sufferer who

usually had some nausea with his headaches. One day he decided to try for his migraine attack one of the dramamine pills given his daughter.

"He claimed that the migraine was relieved completely and rapidly," reports Dr. Kerman, who then decided to try it on eight other migraine patients.

Every one reported benefit from it. Since there were no control studies with mock dramamine pills and the number of both kinds of patients is small, Dr. Kerman says his report is "preliminary" but that he feels other physicians should know of his experiences with the drug.

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PHYSICS

"Radiac" Set for Disaster Use Is Being Produced

► RADIATION detectors for disaster use in atom-bombed areas, where the amount of radiation would swamp a Geiger counter, are now being produced commercially for use by military and civilian defense organizations, the Department of the Army announced in Washington, D. C.

Designed specially for field use with disaster levels of radiation, and able to withstand rough shocks, the detector is a result of the atomic bomb tests in the Pacific.

The "radiac" set, standing for "radioactivity detection, identification and computation," will be used in training troops to survey areas and compute radiation dangers that would be left after atomic bomb blasts.

The instrument, covered with a steel case, is only 10.5 inches long and weighs 10 pounds. It consists of a gas-filled chamber, known as an ionization chamber, in which are two electrodes. When carried into "hot" areas dangerous gamma rays, the most penetrating type of radiation, go through the steel cover and knock electrons from the atoms of gas in the ionization chamber, making the gas slightly conducting. A weak electric current can then flow between the electrodes to show on the radiation-indicating dial.

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GENERAL SCIENCE

Andrade to Head British Royal Institution

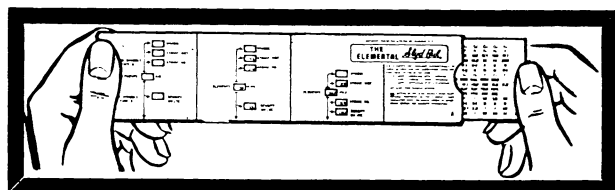
► PROF. E. N. da C. Andrade will become director of Britain's historic Royal Institution, and resident professor and director of the Davy Faraday Research Laboratory on Jan. 1.

Prof. Andrade succeeds Prof. E. K. Rideal who has headed the Royal Institution since 1946.

Since 1928, Prof. Andrade has been Quain Professor of Physics at the University of London. He is a specialist on metallurgy, particularly single crystals of metals.

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