

By the time we get to the stars, the greatest distance available on the earth is much too small to produce any measurable parallax, but fortunately we have a larger baseline. If we take measurements six months apart, the earth has shifted a distance equal to twice its distance from the sun, or about 186,000,000 miles, and for the nearest of the stars this produces a small parallax. None, however, has one as large as a second.

The largest is that of a faint star in the southern constellation of Centaurus, proxima Centauri, its parallax being slightly over three-fourths of a second, equal to a distance of 25,284,000,000,000 miles. But since this is rather a large figure to handle, astronomers usually use other units for stellar distances. One is the light year—the space covered in a year by a beam of light, traveling 186,000 miles every second, some six trillion miles. Proxima Centauri's distance is 4.3 light years. At the other extreme are the most distant galaxies of stars that can be photographed with the new

200-inch telescope—about a billion light years away!

Time Table for November

Nov.	EST	
3	1:00 p. m.	Moon farthest, distance 252,-300 miles
5	4:09 p. m.	Full moon
8	3:27 a. m.	Algol (variable star in Perseus) at minimum
11	12:16 a. m.	Algol (variable star in Perseus) at minimum
13	10:47 a. m.	Moon at last quarter
14	9:05 p. m.	Algol at minimum
15	7:52 p. m.	Moon passes Mars
16	8:31 a. m.	Moon passes Saturn
16	early a. m.	Leonid meteors visible
18	5:54 p. m.	Algol at minimum
18	9:00 p. m.	Moon nearest, distance 223,-400 miles
20	2:29 a. m.	New moon
	1:00 p. m.	Venus farthest east of sun
23	2:10 p. m.	Moon passes Venus
24	7:38 a. m.	Moon passes Jupiter
27	5:01 a. m.	Moon in first quarter

Subtract one hour for CST, two hours for MST, and three for PST.

Science News Letter, October 29, 1949

ETHNOLOGY

Clue to Vanished People

See Front Cover

► **DIGGING** in the hard ice of a bleak, uninhabited island in the far north within the Arctic Circle, scientists have found a drawing made by an unknown artist some 500 years ago which shows that once a vanished people lived there. The island is Cornwallis Island in the Canadian Arctic Archipelago.

The drawing, made on a snow knife used for cutting snow blocks for building temporary snow houses, shows five men in an "umiak" a typical Eskimo boat. The men are on a whale hunt. This is made clear by the fact that one in the bow is shown in the act of throwing a harpoon into a whale. The whale is also shown. The find was made this summer by Dr. Henry B.

Collins, Jr. of the Smithsonian Institution, assisted by J. P. Michea of the National Museum of Canada.

Times must have changed weather conditions because now there are no whales near the island to hunt and no men to hunt them. The scientists believe that a change has occurred in ice conditions in the past 500 years which altered the direction of ocean currents.

The currents washed a considerable amount of driftwood to the island. This is shown by finds of articles such as weapon handles and boat frames made of wood. No wood reaches Cornwallis Island in these days.

The vanished people are believed by the ethnologists to be of the "Thule culture," ancestors of some of the present-day Eski-

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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.

Science News Letter, October 29, 1949

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.

Science News Letter, October 29, 1949

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.

Science News Letter, October 29, 1949

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.

Science News Letter, October 29, 1949

GENERAL SCIENCE

Andrade to Head British Royal Institution

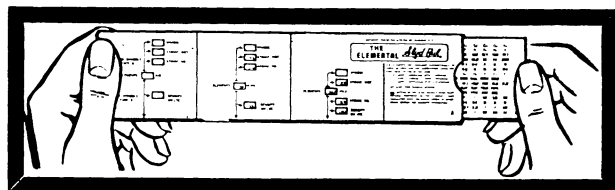
► PROF. E. N. da C. Andrade will become director of Britain's historic Royal Institution, and resident professor and director of the Davy Faraday Research Laboratory on Jan. 1.

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.

Science News Letter, October 29, 1949

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