

First woman inside Antarctica completes 4-week study

By JULIE EMERY

The University of Washington has closed its base camp at Longwire near Byrd Station in the Antarctic. Dr. Irene Peden, who was the first American woman scientist to do research in inland Antarctica, said here yesterday.

The university later this year, hopefully, will begin new radio-science research at Siple Station, which is being established in Ellsworth Land at the throat of the Antarctic Peninsula inland from the Ronne Ice Shelf.

Siple Station, which is

being set up under the Antarctic Research Program, has "unique upper-atmosphere properties," Mrs. Peden said. Stanford University already is building an antenna there that will rest above the ice on wooden poles, she said.

MRS. PEDEN, an associate professor of electrical engineering, is home after four weeks at Longwire where the university has had a 21-mile, low-frequency, under-ice antenna in operation some five years.

Mrs. Peden's work involved testing the propaga-

tion velocity of very-low-frequency waves in the D-region of the ionosphere. The D-region is a layer of the ionosphere between 40 and 55 miles high.

The long-range goal of the research is to learn more about the energy relationship between the earth and the sun.

The research involved use of a loop receiving antenna placed on a sled and dragged behind a big snow vehicle known as a trackmaster. The sled antenna transmitted information gleaned from the underground antenna to the receiving and telemetry equipment inside the snow vehicle.

PART OF THE vehicle equipment measured the changing magnitude and ve-



Dr. Irene Peden

locity of the signals as the trackmaster moved away from the underground antenna.

Some of the signals recorded had gone down into the ice and returned to the surface, Mrs. Peden explained. They thus had changed.

"If we can decide this change, it will tell us something about the radio frequency properties of ice,"

Mrs. Peden said.

Because the Navy forbids a woman to work alone at an Antarctic station, Mrs. Peden was assigned a companion and assistant, Mrs. Julia Vickers of New Zealand. Mrs. Vickers is a librarian and mountaineer. In this instance the companion worked out very well, Mrs. Peden said, but she did not sound wildly enthusiastic about the Navy rule.

"If the assistant had become ill or had any difficulty in mastering the environment, it might have jeopardized the program," she observed.

Mrs. Peden recommends the interior of the Antarctic only for senior, mature women scientists, she said.

"In a situation where most of the personnel are young and male, any woman who

goes in is extremely visible," she said. "It requires both maturity and a strong commitment to science."

THE SCIENTISTS were housed 25 feet beneath the surface in three joined vans. Mrs. Peden found it tricky footwork indeed to descend the abruptly vertical ladder to the vans wearing outside, pressurized boots.

The vans had a small, efficiency-type kitchen, which the Navy had outfitted with huge military-type cooking utensils, pans and knives, she said chuckling. Food for the approximately eight-man team also came in huge containers. She was complimentary of the transportation and logistics of the Navy.

The professor said of her total of six weeks in the Antarctic that "there is a great

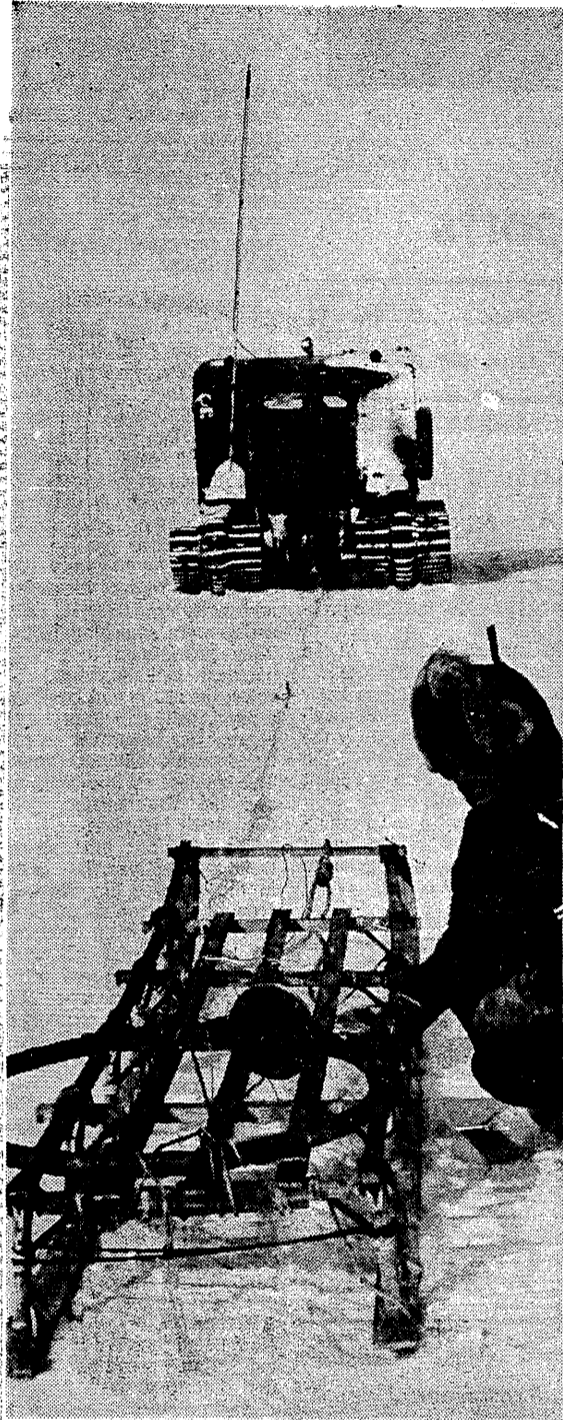
psychological effect of actually experiencing the cold wind and 24-hour sunshine."

She took exercise and yoga classes to prepare for the trip.

"If I were to do this again, I would work out a little on

Mount Rainier too," she said.

The professor is the wife of Loe J. Peden, attorney. Their daughter, Jennifer, 20, a U. W. co-ed, held down the domestic front in her mother's absence.



Dr. Irene Peden examined a loop antenna on a sled in the Antarctic. The equipment was for research on polar low-frequency waves.

Sniper eludes capture in L. A.

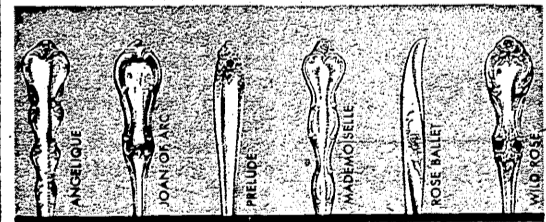
LOS ANGELES — (UPI) — A sniper fired two shots at a patrol car yesterday morning, then eluded capture despite the area being sealed off.

A spokesman said deputy

sheriffs barricaded an eight-square-block area in the Watts area and diverted traffic but that the sniper entered the nearby Martin Luther King County Hospital and escaped through the maze of corridors.

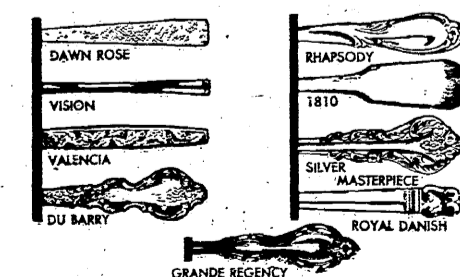
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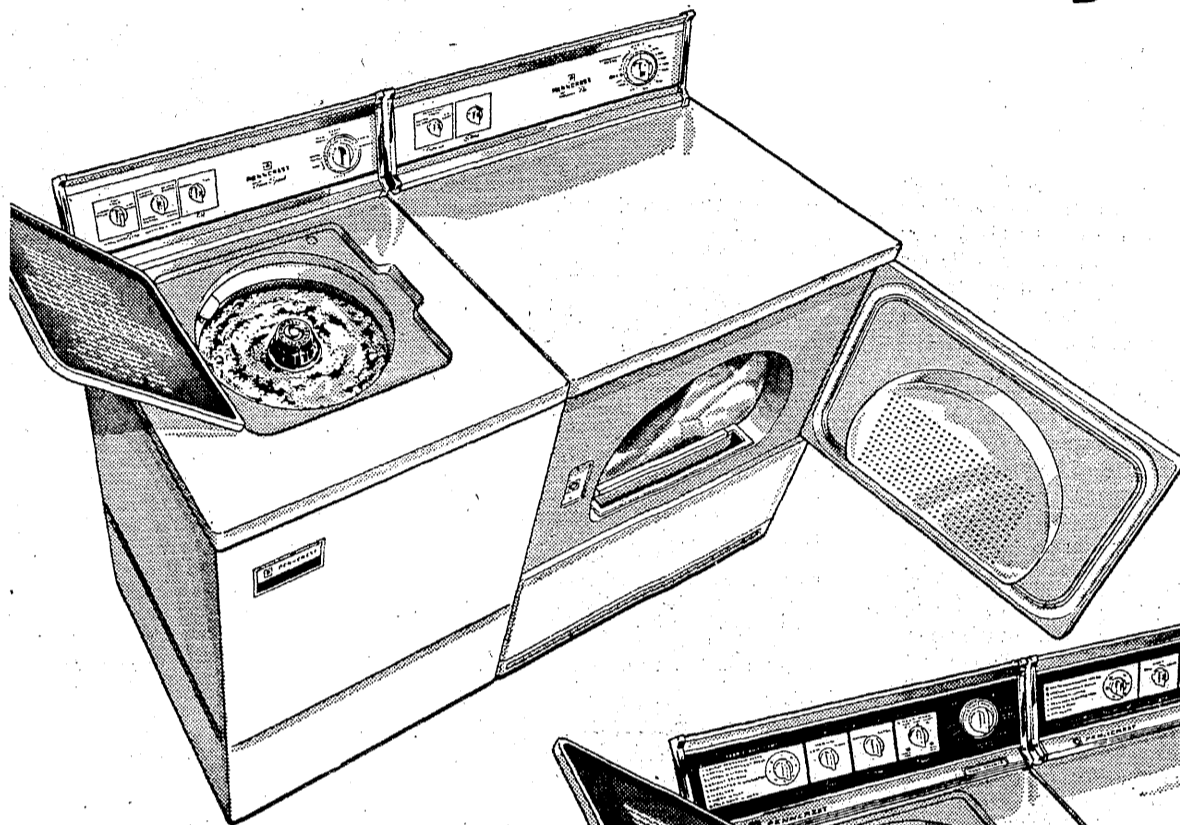
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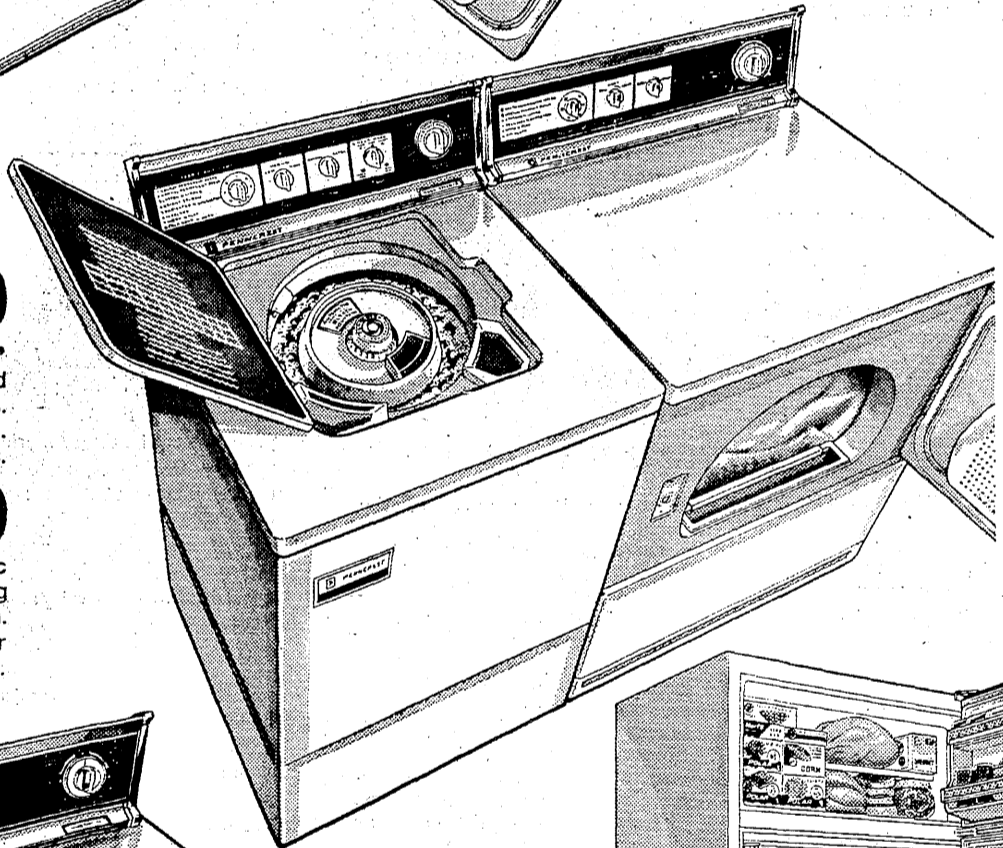


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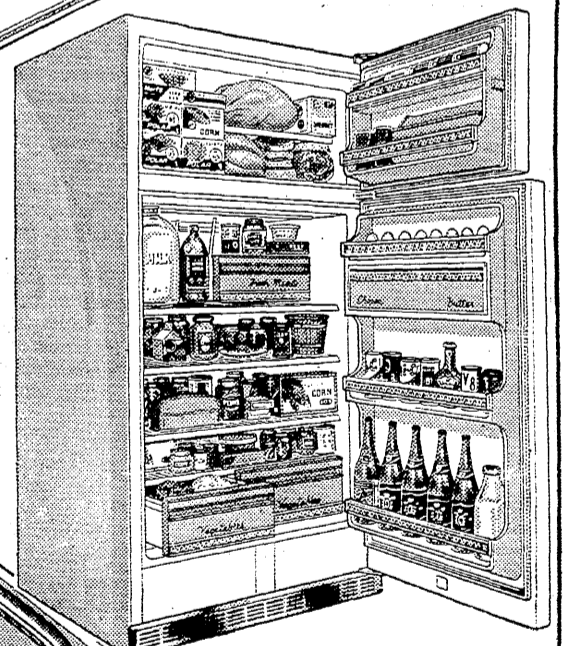
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