a camel-humped signal? Not yet. Dr. Drake is still calibrating the instruments, and the first real listening will begin when that job is finished.

Basing his statement on astronomical probabilities, Dr. Otto Struve, director of the observatory at Green Bank, believes that almost certainly there are planets other than those in our own sun's realm. Life probably does exist on some of them, As to whether that life is intelligent, "we have no answer to that question," he said.

The probability of getting intelligent signals at this time cannot be definitely calculated, but it is very small.

But the Green Bank radio astronomers are going ahead in spite of being a bit embarrassed by insinuations that the project is so improbable that it smacks of science fiction.

"We realize that our chances of success are extremely small," Dr. Drake said, "but we wish to proceed—for the experience—so we will be able to build optimum systems when the chances become appreciably larger."

What will happen if a signal does come through?

The first step is decoding the message, which could be more complex than numerical repetition. At the same time, the electronic apparatus would be hooked up to a larger telescope to get a stronger signal. The 140-foot ear, now under construction at Green Bank, will be used even if no sounds come through the 85-footer.

Dr. Drake makes no guesses about how advanced the sending civilization may be. Certainly it will have to be advanced enough to build a transmitter capable of sending a signal this far. It may be at our own civilization's level or millions of years ahead of ours, he said.

Will we try to send an answer back or return the signal?

No plans have been made for sending. As one worker associated with Ozma put it, "this project is still worrying about its ears. It has not even thought about a mouth yet."

A one-megawatt transmitter would furnish power enough to send a signal back to Tau Ceti or Epsilon Eridani, Dr. Drake calculates. We have that ability and could answer.

To pessimists who believe that we should not answer because we may be a marvelous beef animal for the other civilization, Dr. Drake replies, "Nonsense."

Although it would take 22 years to get an answer, the far-off Wizards of Ozma might be able to tell us how to cure cancer or how to live in peace.

Science News Letter, April 30, 1960

Do You Know

Rheumatic fever and resultant heart disease is the fifth leading cause of death among children of ages 5 to 14.

The treponematosis of *yaws*, similar to syphilis but transmitted by simple contact, is mainly a disease of poverty and faulty hygiene.

ROCKETS AND MISSILES

Optical Inspector Probes Hard-to-Get-at Interiors

AN OPTICAL inspection device designed to give a detailed interior view of the grain bore for solid rocket motors has been developed.

It may also be used, in a portable version, to probe pipes, tanks, airplane wings, boilers, or any type of irregular enclosure presenting hard-to-get-at interiors.

Developed by Aerojet-General Corporation, Azusa, Calif., the optical grain checker can inspect an opening down to two inches in diameter. It features a safe external light source, a mirror that is driven along a slotted optical tube, and a specially designed telescope that magnifies the image of the grain reflected by the mirror.

The checker can be fitted with a camera for detailed photographs of possible cracks.

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SURGERY

Snipped Ear "Springs" Beautify Appearance

PERSONS with bat wing-like or cupped ears can now have beautiful and normal ears by undergoing a simple surgical procedure that snips the "springs" in the ear shell, a reconstruction surgeon of New York reported.

The "springs" are actually sections of cartilage in the ear's shell. There are four such distinct springs, Dr. Louis Joel Feit reported at a meeting of the American Otorhinologic Society for Plastic Surgery, Miami, Fla.

He said his studies of the physiology and mechanical action of the ear have shown that there are three springs with "leaflet" action like the leaf springs in an automobile, all in the outer shell, and with a torque action like a coiled wire, directed into the ear. Two of the leaflet springs run up and down the ear, the other runs horizontally.

The surgeon's method is to break one or more of these springs surgically, depending upon the deformity. He emphasized that the result is not only an ear in the correct position but a beautiful ear with all the natural "landmarks" or folds. In the past, ears were merely pinned back surgically, so they would not be seen.

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Questions

GENERAL SCIENCE—How many high school students will come to the National Science Fair-International as finalists? p. 278.

MEDICINE—What dose is given of the new polio vaccine? p. 277.

RADIO ASTRONOMY—Why was the frequency of 1,420 megacycles chosen for sending signals on the Ozma project? p. 282.

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