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PUBLIC HEALTH

Quacks Cause Deaths

➤ COUNTLESS cancer victims died needlessly last year because they accepted such quack remedies as "a diet of pure grape juice or sitting in a zinc-lined box and accumulating 'orgones'."

This was made public in a report on cancer quackery by the American Cancer Society, presented at the Society's annual meeting in New York.

Biggest reason for leaving a reputable physician and going to a quack, or seeing both of them at the same time, is fear, the report states.

The quack victims are afraid their cancer is incurable, or they are afraid of the expense and think a quack is cheaper.

Some fear surgery or radiation and prefer painless "miracles," others think cancer is a social disgrace, or they think their own doctor has given up hope for them.

Thousands of cancer quacks are now operating in the U. S. and the American Cancer Society offered these ways to spot them.

Their treatments are usually secret or available only from themselves.

They use advertising and planted "testimonials" to support their cure claims, rather than reports in current, reputable scientific journals.

Often they use the name of a high-sound-

ing research organization. They claim the "medical trust" is against them and refuse consultation, and their medical records are either scanty or nonexistent.

However, spotting the cancer quack is not always easy, since charlatans are found both inside and outside the medical profession.

At one end of the quack line are medical doctors who are simply misguided or uninformed on cancer treatment. On the other end are the ghouls who operate assembly line clinics, using methods they know to be useless and charging exorbitant fees. Some of these quacks are making more than \$1,000,000 a year with their dangerous treatments.

Unfortunately, the only way finally to get rid of the cancer quacks is to find a way to cure cancer, the Society said.

The only hope is to legislate and educate against quackery as much as possible until a legitimate cure for cancer can be found. Until then, the public's main protection from the quacks is in the investigation of claims of new remedies, laws to prevent false claims from duping the public, and better education of the public and the medical profession.

Science News Letter, December 7, 1957

GEOPHYSICS

Sputnik Facts Collected

➤ A SUMMARY of reports concerning the first Russian sputnik, its rocket and nose cone, was issued by the U. S. National Committee for the International Geophysical Year, or IGY, the official group guiding U.S. participation in IGY.

In the current *IGY Bulletin* (Nov.), the committee reports that the first Soviet satellite was launched on Oct. 4, 1957, with a speed of about 26,000 feet per second at an angle of 65 degrees to the equator.

Scientists estimate sputnik I was sent into its earth-circling orbit from a point north of the Caspian Sea. An "extremely accurate and effective system of automatic controls" was reported designed for the launching rocket.

The satellite itself is a polished sphere nearly 23 inches in diameter and weighing more than 183 pounds. Its four radio antennas, which measure from seven feet, ten and a half inches to nine and a half feet, were folded back, then sprung into position upon ejection.

The satellite's visibility was comparable to stars of the fourth to ninth magnitude. It contained nitrogen for cooling purposes.

It also contained two transmitters, one operating at 20.005 megacycles, the other at 40.002 megacycles. The pulse of each signal was three-tenths of a second, followed by a pause of similar length during which the other signal was transmitted.

Power was one watt, and the signals were modulated with telemetered data, including information on atmospheric temperature and density.

The first U.S. radio reception of the satellite's signals was reported by RCA Communications, Inc., at Riverhead, Long Island, at 8:07 p.m., EDT, on the launching day Oct. 4. Signals were later picked up by Minitrack stations, converted from the recommended frequency of 108 megacycles, by Antarctic IGY stations, by receivers on a drifting ice floe, and by thousands of amateurs around the world.

The radio broadcasts stopped on Oct. 25, the power supply being exhausted.

Visual observations were more difficult, and most sightings were of the satellite's carrier rocket, not the satellite itself.

The Smithsonian Astrophysical Observatory calculated that on Oct. 11 the rocket's path took it as far as 583 miles and as close as 143 miles to the earth's surface. The eccentricity, or variation from a true circle, of the orbit was five-hundredths, and precession amounted to a little more than three degrees daily. Time for a complete circuit was set at 96.03 minutes.

Science News Letter, December 7, 1957

A 40-foot-long *shock tube* to test ballistic missile designs produces shock waves which travel 17 times the speed of sound.