

MEDICINE

Cancer Linked to Emotions

EMOTIONS may be important contributing factors to at least one type of cancer, two Buffalo, N. Y., researchers believe.

Stress and strain appear to be linked with "inordinate frequency" to the onset of cancer of the cervix, Drs. Frank P. Paloucek and John B. Graham of Roswell Park Memorial Institute reported at the meeting of the American College of Surgeons in Atlantic City, N. J.

More than half of a group of cervical cancer patients studied reported having a "miserable past and a hopeless future." Almost one-third of them suffered a severe blow, such as the death of a relative, within one year of onset of the clinical disease, they said.

"If indeed these social factors are as important as they seem," the surgeons continued, "the treatment must be altered to deal with the underlying problem. In this group of patients, cancer may be only a symptom," Dr. Paloucek said.

The investigators observed that distress-

ing experiences shortly before the clinical onset of cancer may not be limited to cancer of the cervix. They cited three figures in public life: Neville Chamberlain, Robert Taft and John Foster Dulles. Each developed clinical malignancy shortly after a disastrous or demoralizing experience.

The physicians obtained a detailed life history of 49 of 56 consecutive cases of cancer of the cervix to determine the frequency and extent of distressing experience and its relation to treatment response. The women's average age was 52.

Of the 49 cases, 27 gave a history of a distressing experience preceding the disease. In 15, it had occurred within a year of the clinical onset, had been acute, and took the form of death or incurable illness of husband, child or parent. In 12, these experiences had occurred 12 to 30 months before, were still vivid in the patient's memory and also took the form of a loss of a strong emotional attachment.

Science News Letter, October 17, 1959

EDUCATION

Bogus College Degrees

BOGUS COLLEGE DEGREES—obtained easily if the fee can be raised—are giving U. S. education a black eye abroad.

A 99-page report on "American Degree Mills," published by the American Council on Education in Washington, D. C., points out that "degree mills" are bilking the gullible of about \$75,000,000 annually, and are ensnaring as many as 750,000 students a year.

These "correspondence schools" were divided into two types: 1. Those in the U. S. offering study by correspondence at home and abroad—concentrating heavily on foreign nationals, and 2. American-chartered or sponsored institutions located on foreign soil offering residential or correspondence education to foreign nationals and some Americans.

There are now at least 200 such degree mills operating in 37 states, the report said. In return for a fee, they give bachelor's, master's and doctor's degrees "without requiring the labor, thought, and attention usually expected of those who earn such degrees."

Their common characteristics include untrained or nonexistent faculties, a drastic telescoping of a bona-fide curriculum, students often unqualified for any program of higher learning, catalogue descriptions that misrepresent actual offerings, exaggerated ads in popular magazines of wide distribution often promising well-paying jobs upon graduation, classrooms that turn out to be a post office box or a loft or single room, and officers who often get their own degrees from a similar, or their own, outfit.

Foreigners often are victims of such schools, being unaware of lax state control of educational malpractice. They find it

difficult to understand how any school in the U. S. can be bogus if it is allowed to exist.

The report recommends "better legal machinery than now exists." It calls for uniform legislation, spearheaded by concerted state action. It also calls for back-up Federal legislation to close remaining loopholes on the interstate and international levels.

Science News Letter, October 17, 1959

FOOD TECHNOLOGY

Government Seeks Way Of Harvesting Algae

THE U. S. GOVERNMENT is on the lookout for an enterprising person who can devise an economical method of harvesting algae.

Throughout this country, the little green plant that causes scum on ponds and lakes, is "ripe" for harvesting and can be put to good use—except that no one knows how to gather it inexpensively.

Algae could supplement food and forage products. It could become a new source of vitamins, animal feed, fertilizer and other organic products useful to man. Algae "gardens" exist in many small communities as a treatment for sewage, Dr. C. M. Palmer, algologist, and Harold J. Walter, biologist, Public Health Service's Sanitary Engineering Center, Cincinnati, reported.

They are the authors of a new algae report, *Algae in Water Supplies*, which can be purchased for \$1.00 from the Superintendent of Documents, Government Printing Office, Washington, D. C.

Dr. Palmer said it had been estimated

that an area the size of Rhode Island, if covered with growing algae, could nourish the population of the world. Right now, Texas, California, South Dakota and several other states use algae extensively to treat many of the sewage ponds in the smaller communities. These gardens could reap good crops if it were possible to harvest the large "crops" of algae inexpensively, he stressed.

Algae are minute organisms. If they are to be used as animal fodder, fertilizer, or converted to more appetizing forms for human consumption, they will have to be gathered out of the water and concentrated. This is what costs money today.

Yet, it is the massive growths of algae developed in sewage stabilization ponds that advancing technology may some day be able to convert to useful products.

Science News Letter, October 17, 1959

MEDICINE

Artificial Kidney Found To Have Few Limitations

THE ARTIFICIAL KIDNEY may be used to treat the very old, the very young and the very sick, provided it is skillfully handled, its inventor reports.

A patient's age and severity of illness need not be factors limiting the machine's applicability, Dr. William J. Kolff, Cleveland Clinic Foundation, states in the *Journal of the American Medical Association* (Oct. 3).

The artificial kidney duplicates the work of the body's kidneys in removing poisons and chemicals from the blood. It consists of a cellophane coil resting in a stainless steel tub containing a special solution. A plastic tube is connected to a leg artery and the blood is forced into one end of the coil. The blood flows through the coil and back into the body through a tube connected to a vein in the arm.

Changes in blood volume produced by the artificial kidney can cause shock or abnormally rapid blood movement. These results can be especially dangerous for the very young, very old or very sick. Some physicians, therefore, hesitate using the artificial kidney in treating patients in these categories.

Dr. Kolff and his associate, Dr. William A. Kelemen, however, believe that skillful use of the artificial kidney can prevent these undesirable results. The advantages and "virtual certainty of clinical improvement" to be gained by using the machine in cases involving uremia (presence of toxic urinary constituents in the blood) or fluid retention, they said, far outweigh the possible dangers involved.

The machine should be used whenever there is the slightest possibility of recovery, they said. Reluctance of clinicians to use this therapy, which often may be life saving, is not justified.

The doctors reported results of using the machine to successfully treat patients in several age categories: a 16-month-old baby girl, a 77-year-old woman and a seriously ill middle-aged man.

Science News Letter, October 17, 1959