

## French Birth Control Laws Due For Reform

► FRANCE'S LEADER in family planning, Dr. Lagroua Weill-Hallé, predicted success for legislation that will reform her country's restrictive laws on birth control.

French law at present provides up to six months in prison and a fine of 5,000 francs for publicizing the sale or use of contraceptives. But major changes in attitude over the past few years have led to the introduction of new bills modifying the old law, Dr. Weill-Hallé told the Planned Parenthood-World Population national conference in New York.

By carefully avoiding a reference to birth control Dr. Weill-Hallé has succeeded in operating a family planning association in France since 1956. She has never been arrested, though a dangerous point came in 1960 when she published a study of contraception. Her colleagues waited for the legal consequences, said Dr. Weill-Hallé, and when nothing happened, began taking action themselves.

Now more than 90 family planning centers exist in France.

"From a stage of near prohibition, family planning is going to become officially what we have always believed it to be—a public service," the gynecologist said.

In another conference speech, Dr. Margaret Mead, noted anthropologist, suggested that U.S. women establish a new "chic" of small families. Women from all over the world look to American women as "style setters," said Dr. Mead.

Present living conditions make it virtually impossible for an educated woman to do the housekeeping demanded of her and keep up with her career choice, the anthropologist observed. Thus, the opportunity to be both a contributing individual and a wife and mother has actually contracted rather than expanded, she said.

## PUBLIC HEALTH

## Mononucleosis Not A Serious Disease

► INFECTIOUS mononucleosis is not a serious disease, and prolonged bed rest hurts rather than helps students afflicted with it, a university physician reported.

Dr. John Flinn, director of health services at the University of Rochester, N.Y., said the disease need not cause so many school dropouts. Private physicians, as well as patients, too often panic with a diagnosis of mononucleosis, observed Dr. Flinn. The student goes to bed for weeks and subsequently must drop out of school because of lost time.

Actually, the disease is relatively benign; it rarely produces complications and needs no specific treatment, Dr. Flinn said.

Speaking in New York City at a conference on "absenteeism" the physician reported that the Rochester health service last year treated 62% of its mononucleosis cases on a "walk through" basis—the students never went to bed. Those with acute symptoms required an average of only four days bed rest. (Roughly three percent of the student body contracted the disease, commonly called the "kissing disease," though the method of transmission is not known.)

"I am convinced that any symptoms lasting beyond four to six weeks after onset of this disease are induced by too much physical restriction," said Dr. Flinn. The only restriction recommended at Rochester is in contact sports, where there could be a danger of ruptured spleen.

Dr. Flinn said his view of mononucleosis is held by a majority of physicians belonging to the American College Health Association, who see most cases.

He also said he suspects that the medical men who overreact fail to distinguish between the liver involvement in mononucleosis and the much more serious problems caused by infectious viral hepatitis.

Liver changes in mononucleosis are usually benign and temporary, noted Dr. Flinn, and no documented cases of chronic liver disease can be attributed to this ailment.

## SPACE

## Scientist Reports New Lightweight Rocket

► A TINY rocket weighing only one and one-half pounds developed by Dr. Aldo V. LaRocca of General Electric's Valley Forge Space Technology Center was reported at a meeting of international space experts in Madrid.

The rocket, called SPET for Solid Propellant Electric Thruster, is designed for spacecraft attitude and orbit control. It can deliver one-ten-thousandth of a pound of thrust, and although it is very small compared to the mighty engines of the Saturn V moon rocket, SPET has a virtually unlimited life and can provide thrust continuously for two years using only about an ounce of fuel.

Dr. LaRocca's little rocket engine operates on a solid fuel suspended in a liquid. Capillary action insures a continuous feed of propellant to an electrode where a high-voltage spark vaporizes it. The resulting plasma gas is then accelerated from the thruster unit by a magnetic field.

The film of propellant on the electrode is self-replenishing, flowing by capillary action from the fuel reservoir to the firing chamber.

# IN SCIEN

## SPACE

## Laboratory-Made Beam Simulates Outer Space

► A MOLECULAR beam that realistically simulates conditions facing a space vehicle moving at about 25,000 feet per second 100 miles above the earth has been produced in a laboratory.

After years of experimentation, Dr. Eldon L. Knuth, head of the molecular beam laboratory at the University of California at Los Angeles, has produced a molecular beam of two electron volts (ev), which is within the approximate energy range in which upper atmosphere particles collide with space craft.

Shooting the beam at metal and glass surfaces, Dr. Knuth and graduate student Jack Alcalay got a surprise bonus when they discovered that the particles bounced off the solid surfaces in different ways than had been generally assumed.

They had expected that particles in this energy range would bounce off and scatter either completely at random or in one preferred direction. Instead, the experiments showed that the particles scattered in several preferred directions.

The findings, the first of their kind ever reported, can play an important role in future space research, Dr. Knuth believes.

"As we determine how molecules interact with the surfaces of spacecraft, we will be able to predict the actual useful lifespan of a satellite," he said. Past estimates, he added, have been off by as much as a factor of two.

## MILITARY SCIENCE

## Hydrofoil Subchaser Is Near Completion

► A HYDROFOIL submarine chaser, which will rise out of the water on metal "legs" to pursue its prey at speeds of 65 miles per hour, will be joining the Canadian Navy in the next few months.

The ship already has its big foil system installed and the 22,000 hp gas turbine main engine has been mounted on the vessel's deck. The turbine will propel the vessel in the foil-borne configuration, while a 2,000 hp diesel engine will provide driving power the rest of the time.

The 200-ton vessel is expected to go for sea trials off the coast of Nova Scotia around the end of the year.

Called the FHE-400, it is being built at the Marine Industries yard there.

# CE FIELDS

## AGRICULTURE

### Life-Proof Grass Sought for Airports

► THE AUSTRALIAN Department of Civil Aviation has asked Government scientists to come up with a substitute for grass at airports. The material must be not only cheap, but "incapable of supporting life."

The object is to keep birds away by making airports biological deserts.

The snag with grass is that, while it inexpensively prevents soil erosion at airports, it provides seeds for birds to eat and attracts insects.

Concreting or tar-sealing the huge areas that airports cover is too expensive. The problem is to find a cheap material, one that also has some of the advantages of grass, such as holding down dust.

The Government anticipates that it may take years to find the ideal solution. Meanwhile, research to find a safe and effective insecticide to use on airport grass is continuing.

To make matters worse, another bird has been added to the list of airport hazards. This is the nocturnal curlew which feeds on insects attracted to runway lights.

A possible solution being investigated is to fit filters to the airport lights to remove their attraction for insects.

## PUBLIC HEALTH

### Traveling Waiters Spread Stomach Ills

► THE TRAVEL BOOM will lead to one big bellyache unless Europe's health authorities give migrant workers a more thorough checkup, a British doctor has warned.

One could get frightfully sick eating Yorkshire pudding served in British restaurants by migrant waiters from Spain, Italy and Greece, reported Dr. Arthur Gee, medical officer for Lowestoft, Suffolk, at the First International Conference of the Royal Health Society.

Discussing the health problems of immigrants, Dr. Gee said the northern and western European countries, now accepting millions of southern workers, have been emphasizing the great hazards such as smallpox and tuberculosis.

"But we are finding a large increase in the number of cases of gastrointestinal infections among them, and among people in holiday places in our region," he said.

He urged European health authori-

ties to compel immigrant workers to present certificates of freedom from gastrointestinal diseases just as they must show vaccination and chest X-ray certificates.

"It is only recently that we have had this influx of foreign waiters," Dr. Gee later told a correspondent. "Mind you, it is not that their standards of hygiene are lower than ours. But they travel about a lot and tend to pick up GI infections."

Dr. Gee fears that unless sterner measures are taken, the tourist boom, combined with the flood of workers across frontiers, will lead to bigger and bigger epidemics of such infections. "They may not be very serious, yet they can be extremely distasteful and annoying to holiday-makers," he observed.

Doctors in other European countries have recently also expressed concern about foreign workers but invariably they discuss other dangers.

Switzerland, for example, with a population of six million, employs almost a million workers, mostly from Italy; the Swiss have feared outbreaks of typhoid could occur.

## MEDICINE

### Should Include Lung Diseases in Program

► CONGRESSMAN John E. Fogarty, (D-R.I.), the most vocal proponent of medical legislation in the House of Representatives, said in Princeton, N.J., that emphysema and chronic bronchitis, major lung cripplers, should be included in the Government's new regional medical programs.

The programs, covering heart disease, cancer, and stroke, were created by Congress to foster more research into these major problems and better care of people suffering from them or related diseases.

The close relationship between problems of the circulatory and of the respiratory systems makes emphysema and chronic bronchitis prime candidates for inclusion in the regional programs, said the Congressman, in a keynote address to a task force on the two diseases.

Chronic bronchitis is very often the forerunner of emphysema, a progressive obstructive disease of the lungs leading to poor ventilation and an increased workload on the heart. Often, in severe cases of emphysema, the patient will die of heart failure, the most common complication of emphysema.

If patients with chronic respiratory disease could be cared for at the regional medical centers now being established throughout the United States by the recent legislation, this would provide preventive medicine in its finest sense. Congressman Fogarty declared.

## SOCIOLOGY

### Academy Urged to Study Heredity-Slum Mystery

► A NOBEL PRIZE winner in physics has charged his fellow scientists with avoiding the study of heredity as it affects slum populations.

Dr. William Shockley of Stanford University, California, called upon the National Academy of Sciences to "ignore racist implications" and institute research concerning the effects of heredity on human behavior, especially as they relate to city slum problems.

"Pitifully few" studies on the heredity-environment question have been carried out because, Dr. Shockley believes, they inevitably bear on sensitive issues concerning ethnic minorities.

"I find I cannot in good conscience walk away from this challenge," Dr. Shockley told the autumn Academy meeting in Durham, N.C.

Clearer understanding of the respective importance of heredity and environment would have profound impact on welfare programs, birth control programs and abortion laws.

It may be that the heredity-environment question can never be absolutely solved. If so, "let us find the basic laws that fix a minimum uncertainty," as physicists have done in quantum mechanics, said Dr. Shockley, who shared the Nobel Prize for physics in 1956.

Dr. Shockley specifically urged the Academy to set up a summer study group to seek new ways of applying scientific imagination to the problem. He also proposed a mathematical formula used in the physical sciences that could perhaps be useful in tracing genetic makeup in humans.

## ZOOLOGY

### First Siamese Bats Are Found in Canada

► A PAIR of big brown bats—a species found throughout the Americas—are the first Siamese twin bats ever reported, according to the curator of the Royal Ontario Museum. Born prematurely, the bats were found dead by students in a public school yard last year.

A teacher preserved the unusual specimen, later turning it over to a Museum employee. The bats are joined at the chest and arms, down to the fingers, which constitute the wings of the world's only flying mammal. The specimen is only 1.75 inches long, half the adult size.

Bats are in abundant supply, being second only to rodents in number among mammals. About 1,000 species have been identified, and one graduate student in eastern Ontario caught and branded more than 11,000 bats in 18 months.