

# Medical Sciences Notes

## MARIJUANA

### Compounds Ready for Study

Israeli and American chemists report for the first time that scientists will have pure compounds for the study of marijuana's metabolism in the body. They have synthesized the two intoxicating ingredients.

Dr. Herchel Smith of Wyeth Laboratories in Philadelphia, who helped to synthesize one of the ingredients, says the effects of the plant on the central nervous system can now be observed.

Another scientist, Dr. Raphael Mechoulam of the Hebrew University of Jerusalem, who aided in synthesizing the mind-affecting components of marijuana, believes the former lack of information was due to the fact that the natural isomer has not previously been available.

Each of the two ingredients, called tetrahydrocannabinols, exists in two forms whose molecules resemble each other as the right hand resembles the left.

Preliminary tests with human volunteers indicate that the new synthetic substances duplicate the effects of natural marijuana, and animal tests confirm marijuana-like activity. This causes tranquilizing symptoms in monkeys and loss of muscle control in dogs.

Details of the synthesis appear in the Aug. 16 *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*.

## PUBLIC HEALTH

### Meat Inspection Legislation

A strong substitute bill will be offered, probably in September, to extend to states Federal meat inspection standards if packaging and processing facilities have a gross annual volume of business exceeding \$250,000.

A watered-down bill reported out of committee has the approval of the National Association of State Departments of Agriculture and stands a good chance of passing the House. This bill is a version of one supported by Representative Neal Smith (D-Iowa).

Congressman Smith, however, is behind the stronger bill, H.R. 12145, which has the support of Representative Thomas S. Foley (D-Wash.), and which is known as the Smith-Foley bill.

Although 84 percent of the meats sold in the U.S. are Federally inspected, 5.3 billion pounds of meat slaughtered, and 7.6 billion pounds of meats processed are not under Federal inspection. There are no mandatory standards at all for meat inspection in 24 states (SN: 8/5).

## MEDICAL EQUIPMENT

### British Oxygen Tent

A new oxygen tent that could be produced at a price nearly 15 times cheaper than existing ones has been designed by a woman engineer and a physician at London's University College Hospital.

The tent is so easy to operate that it can be used at home, and its low price also means that some small hospitals might be able to afford the facility for the first time.

Conical in shape, the tent is suspended above the bed and is tucked in below the mattress at the back. At the front it has a polyethylene fringe through which a nurse can gain access to the patient without loss of

too much oxygen. A wider opening can be made by the use of flaps that are closed with pairs of small magnets. The gas inlet is at the top to insure that the oxygen passes the patient's face before reaching the only gas outlet.

The National Research Development Corporation in London is arranging for the tent's manufacture.

## DENTAL EDUCATION

### American Dentists To Aid Saigon

The American Dental Association has undertaken a three-year program to provide assistance to the dentistry faculty at the University of Saigon.

ADA has signed a contract with the U.S. Agency for International Development to conduct the project, aimed at meeting dental requirements. With a population of about 15 million, Vietnam has only about 130 dentists—one to 120,000 people.

Dr. Marvin E. Revzin, associate of the University of Detroit School of Dentistry, will direct the program.

Dental educators will pledge themselves to remain in Saigon for six months to a year, working with their counterparts at the university to strengthen the program and to provide a basis for selecting and training promising Vietnamese dentists in the U.S. There will be no brain drain here: such Vietnamese will be required to return home and teach for at least two years.

## BIOENGINEERING

### Compact Artificial Kidney

First trials of a capillary kidney on a human volunteer have been successful, and pending further clinical tests, the new artificial device is said to have advantages over kidneys now in use. The foot-long cylinder is smaller and cheaper than the apparatus now available.

The capillary kidney, so-called because it contains hollow, hair-size cellulose fibers somewhat larger than the capillary vessels of the human vascular system, may operate without a pump, depending on the patient's heart condition. However, in the trial at the University of Michigan, a pump was used.

William Knezevich, a 38-year-old Monroe, Mich., man with irreversible kidney failure, volunteered for treatment pending a kidney transplant. When a donor kidney becomes available from a recently dead person, he will undergo transplant surgery. During the test doctors and engineers were present from Marquette University School of Medicine, as well as from the Dow Chemical Co., research laboratories, where five years' research led to the development.

## MEDICAL RESEARCH

### British Spending More

Britain is spending twice as much on medical research today as was spent six years ago. The \$140 million allotted this year is, on a per capita basis, only about one-fourth of American expenditure.

The Office of Health Economics in London reports that the Government's share is rising. In 1965-66 it provided 63 percent of the money, the pharmaceutical industry gave 27 percent and trusts and charities, 10 percent.