

VITAL STATISTICS

Overcrowded U. S. Seen

► IF THE CURRENT high birth rate in the United States continued indefinitely, the year 2611 would find this country with one person for every square foot of land. The population would exceed one billion in less than a century, hit the one-person-per-square-foot level in 650 years, and be so heavy with people in 1,700 years that the U. S. population would outweigh the earth.

Dr. Ansley J. Coale, director of Princeton University's population research office, used these figures to stress what he calls the literal impossibility of maintaining the U. S. present rate of fertility and population increase.

Effects of the World War II "baby boom" have reached their peak, "or will in the near future," he said. But from 1980 on, if the present birth rate continues, both the child and adult population would increase at a yearly rate of two percent, doubling every 35 years.

Dr. Coale told the symposium on the Commonwealth of Children, meeting at Duke University, Durham, N. C., that an acceptable social program for restricting births is difficult to formulate.

The symposium was held in honor of Dr. Wilburt C. Davison, a renowned pediatrician at Duke University.

He said American couples, now favoring two, three and four children, cannot reasonably be expected to limit the size of their families until overcrowding becomes so acute they feel unable to support another child adequately. By then, the overall population situation already would be "a catastrophe."

Meanwhile, he sees strong arguments against a return to the lower pre-1940 birth rates. It would mean higher rates of spinsterhood and more childless marriages.

Moreover, a family with four children is often beneficial to the children themselves, he said. An only child has psychological burdens. Two children cause maximum sibling rivalry. Three children mean that "two are likely to gang up on one."

He suggested concentrating on immediate problems—the need for more school space, more teachers and more jobs—rather than worrying about long-range overpopulation. Today's problems, he said, are neither easy nor overwhelming.

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MEDICINE

Special Hospitals Needed

► THE DAY of sirens screaming down the street while an ambulance speeds an accident victim to the nearest emergency room in a general hospital will some day come to an end, Dr. Preston A. Wade of Cornell University Medical College, New York, has predicted.

Dr. Wade, a professor of clinical surgery who was called into consultation by the President's physician during his recent back trouble, told the Clinical Congress of the American College of Surgeons in Chicago that there should be specialized accident hospitals in this country.

Dr. Wade reported in detail a Cornell study of car design undertaken in the hope of preventing accidents. He said accident victims sometimes do not get good care in hospital emergency rooms.

Training young men in general surgery before they take up a specialty will be necessary if orthopedic surgeons respond to the challenge to become trauma or injury surgeons.

The surgeon may not have time to learn the intricacies of lung cancer, Dr. Wade said, but he certainly could learn how to handle a caved-in chest injury.

Until the day comes when trauma hospitals will be more widespread in this country (there are a few here and in England, and they have been operating for years in Austria and Hungary), Dr. Wade advised the American College of Surgeons to advance the teaching of trauma care to medi-

cal students, resident physicians and every surgeon regardless of his specialty.

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Human Organs Removal

► HUMAN ORGANS can soon be removed from the body for repair and safely returned, three University of Minnesota researchers predicted at the 47th annual Clinical Congress of the American College of Surgeons in Chicago.

Ten dogs whose stomachs were removed and later put back have survived from three months to two years in spite of cutting nervous system connections.

Drs. Richard C. Lillehei, Jerrold K. Longeborn and Bernard Goott of Rochester, Minn., reported similarly removing and putting back the small bowel. Both bowel and stomach can go as long as five hours without a blood supply if they are cooled to about 41 degrees Fahrenheit.

The stomach's hydrochloric acid secretion gradually returned but the digestive enzyme, pepsin, had not been found in any significant amount after two years. Normal digestion and nutrition were maintained, however.

Two Texas surgeons, Drs. H. Edward Garrett and Sam W. Law of Baylor University College of Medicine, Houston, reported a new adhesive material that congeals wounds rapidly.

Called "Ad/here," the adhesive is manu-

factured by the Borden Company. The chemical, methyl alpha-cyanocrylate, controlled bleeding in ten experimental dogs when placed on the suture line before releasing the blood vessel clamps.

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MEDICINE

Test Rapidly Pinpoints TB Germ's Relative

► A SIMPLE TEST has been developed for speedily identifying one of several bacteria that closely resemble those causing tuberculosis, but produce diseases that do not respond to standard TB drug treatments.

Mycobacterium fortuitum, one of the "atypical" bacteria related to the tubercle bacillus, can now be recognized from a single test tube culture in three days. Testing formerly involved several stages, three to four weeks' time, and equipment most laboratories do not have.

The new technique was devised by Dr. Lawrence G. Wayne, microbiological research chief at the San Fernando, Calif., Veterans Administration hospital.

The germ, found in soil and even in the mouths of healthy persons, may reach the lung and cause a disease resembling tuberculosis, Dr. Wayne said. He believes the test will help prevent errors in diagnosis and treatment.

Dr. Wayne estimates that one to five percent of all patients in TB hospitals may be infected with one of the four known "atypical" bacteria, rather than with the tubercle bacillus.

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BIOLOGY

"Alarm Clock" Brings Snakes to Surface

► A BUILT-IN "ALARM CLOCK" apparently helps a brightly-banded little desert snake come to the surface at night after he has buried himself to escape the day's heat.

Drs. Kenneth Norris and J. Lee Kavanau, University of California, Los Angeles, zoologists, are studying the habits of the reptile known as the shovel-nosed ground snake.

It had been noted that these snakes, which remain buried in the sand most of the time, appear to come to surface virtually in unison over a wide area every night. It was thought that they followed a rising heat barrier in the sand which rises as the sand cools off each night.

Laboratory studies, with special electronic oscillators to follow the reptile's movements in detail in a laboratory "sandpile," have indicated that there may be a little more to it than this. The investigation has suggested that the snake has a biological alarm clock which "wakes" him up about 23 hours after his last emergence at the surface.

While the onset of evening darkness occurs at almost precise 24-hour intervals, the snake becomes active when his alarm "goes off" an hour earlier perhaps, which may allow him to take advantage of cool days when the sand cools off earlier than usual. The rising heat barrier may enter into the picture, however.

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