Conn., on 21 July. It is 330 ft long, as compared with the 300 ft of the first atomic-powered submarine, the *Nautilus*. The *Seawolf* is expected to have a submerged cruising speed in excess of 20 knots.

In the prototype reactor at West Milton, the steam drives a turbine generator with a maximum rating of 12,500 kw. With more power being produced than is needed for studies of the *Seawolf* operation, General Electric contracted with the Niagara Mohawk Co. for the sale and distribution of excess amounts. The amount to be sold will vary, depending on the excess available, but will not exceed 10,000 w. Ten thousand watts is normal consumption for a city of 20,000 to 30,000 people.

The arrangement with the Niagara Mohawk Co. is temporary. Under existing law, public and cooperative power plants must be given first opportunity to purchase power generated in government projects. The Knolls Atomic Power Laboratory is an Atomic Energy Commission installation. Three such companies operate near West Milton and are eligible to receive the power.

Power is being sold at 3 mills/kw. The money goes to the Federal Government. Cost of production was not released, but it is greater than the 3-mill rate at which it is being sold. The reactor, however, was not built to be competitive with other sources of commercial power.

The throwing of the switch that for the first time made electricity from an atomic source available through the usual commercial channels was preceded by a program in which Francis K. McCune, vice president of General Electric and general manager of the company's Atomic Products Division, Senator Clinton P. Anderson, chairman of the Joint Congressional Committee on Atomic Energy, Douglas McKay, Secretary of the Interior, Ralph J. Cordiner, president of G.E., and Lewis L. Strauss, chairman of AEC, all spoke.

In concluding a series of brief talks that had given emphasis to the day's event as marking the beginning of new advances in the atomic age, Strauss commented:

"Before me stands a large two-way switch. If I throw its blade in one direction it will turn the propeller shaft of a military weapon.

"But when I throw it in the other direction, as I am about to do, it will send atomic electric power surging through transmission lines to towns and villages, farms and factories—power not to burst bombs or propel submarines, but to make life easier, healthier, and more abundant.

"This switch is a symbol of the great dilemma of our times.

"I throw it now to the side of the peaceful atom. . . ."

NIH Directorship Changes

WILLIAM H. SEBRELL, JR., director of the National Institutes of Health and Assistant Surgeon General, U.S. Public Health Service, will retire 1 Aug. He will be succeeded as director of the institutes by James A. Shannon, currently associate director. Sebrell has accepted a new position with the American Cancer Society.

Commenting on Sebrell's retirement, Surgeon General Leonard A. Scheele said: "His directorship has been invaluable in bridging a complex period of transition, not only in our own expanding research program but in medical research the world over. Doctor Sebrell, drawing upon a distinguished background of active research and administration, has been one of the Nation's leaders in the new research attack on disease, particularly the chronic diseases, such as heart disease, cancer, and mental illness."

Sebrell was born in Portsmouth, Va., in 1901. He received his medical degree from the University of Virignia in 1925 and entered the U.S. Public Health Service. In 1928 he joined the staff of the laboratory that was later to become the National Institutes of Health.

He earned a world-wide reputation as a medical scientist, particularly through his studies on the B vitamins. He was a member of the Public Health Service team that established in the 1920's the dietary origin, prevention, and treatment of pellagra, then one of America's most serious deficiency diseases. In the course of his work, Sebrell discovered the cause and cure of another vitamin-deficiency disease, ariboflavinosis. He has also received scientific acclaim for important findings in the dietary cause and treatment of liver disease, the effect of pantothenic acid deficiency on the adrenal glands, nutritional effects of the sulfonamides, and the cause and treatment of blood abnormalities. In 1950 he was appointed director of the National Institutes of Health.

Sebrell has taken a leading part in nutrition studies throughout the world. For his work in this field he holds the Legion of Merit. He has been honored for his achievements in the field of nutrition research with the Mead Johnson award of the American Institute of Nutrition, the Research medal of the Southern Medical Association, and the Goldberger award of the Council on Nutrition of the American Medical Association. He has written more than 100 scientific papers on nutrition and public health. In 1954 he was elected president of the National Vitamin Foundation and vice president of the American Board of Nutrition.

In his new position as research consultant at the American Cancer Society, effective 1 Aug., Sebrell will direct the society's institutional research grant program, which involves about half of the society's expenditure of $6 million for research this year.

James A. Shannon, the new director of the National Institutes of Health, has been associate director since November 1952. His principal responsibilities have included development of the NIH direct research program. He is also chairman of the Public Health Service's Technical Committee on Poliomyelitis Vaccine. Prior to 1952 he was associate director in charge of research at the National Heart Institute.

The heart institute is one of seven research centers comprising the National Institutes of Health. Other separate institutes cover cancer, neurological diseases and blindness, arthritis and metabolic diseases, mental health, dental research, and microbiology.

The NIH is the site of the Clinical Center, a new 500-bed research facility opened in 1953. Other major programs of the NIH include substantial financial support through research grants to investigators in non-Federal institutions and support of research fellowships and clinical traineeships.

Genetics of Extinct Species

That we need not always be ignorant of the genetics of extinct species has been demonstrated by a remarkable comparative study of the molar teeth of the present-day European brown bear (*Ursus arctos*), the extinct late Pleistocene cave bear (*U. spelaeus*), and other still older, early Pleistocene bears of Europe, including *U. etruscus*, the common ancestor of these bears. Björn Kurtén, of the Geological Institute of Helsingfors University, Finland [*Evolution* 9, 107 (1955)], finds that these teeth show allometric growth, according to the well-known equation $y = bx^k$. That is, they exhibit a constant differential growth ratio (k) between the height of the cusps, or paracones, on the tooth (y) and the length of the crown (x).

The ratio is different in the cave-bear samples from the ratio in the majority of recent and fossil brown bears, but some populations of the brown bear reveal the typical cave-bear kind of tooth growth. Both kinds of tooth growth are also present in the ancestral species *U. etruscus*.

There is some evidence that the two types of tooth growth differ by a single Mendelian factor, for the frequencies of the two types and an intermediate between them fit the expectations derived from the Hardy-Weinberg principle. Hence, it is possible to say that the mu-