

SCIENCE SHORTS

A miscellany of happenings and information in various fields the world over

Corn, like other deep-rooted crops, does not grow well on shallow soils.

Industrial growth in the Tennessee Valley Authority region in 1965 created an estimated 38,000 *new jobs* in manufacturing.

New York State's *population* has quadrupled in 100 years, from less than four million persons in 1860 to nearly 17 million in 1960.

Low frequency *sound* is a possible means of herding salmon, and other fish that migrate between fresh and salt water, around hydroelectric dams which menace the fish on the downstream trip.

No *rain* has been known to fall on the Chilean desert in this century.

The enrichment of *bread* has contributed greatly to the general good health of people in the United States.

By 1970, gross production of *fruits*, berries and grapes in the United States is slated to reach 14.3 million short tons, about double the 7.5 million ton level of the past few years.

The United Kingdom, West Germany and Japan import more *food* than any other nations in the world.

The *electrocardiograph*, an instrument which records in graphic representation the varying electrical currents resulting from the activity of the human heart, was invented about 35 years ago.

The bottlenose *porpoise* can hear sounds seven octaves above those audible to men.

Archaeological evidence indicates that *Aborigines* have been in Australia for at least 10,000 years.

A layer of abnormally cold *water* 30 to 40 feet deep has been discovered on the bottom of the Caribbean Sea.

Public *street lighting* in its earliest form was accomplished by placing lighted candles in the windows of homes along the street.

Educational TV is being tested as a means of teaching food sanitation practices to restaurant workers in an effort to reduce an estimated one million cases of food-borne illness occurring annually in the United States.

More than 30% of the *drivers* in the United States involved in fatal accidents in 1965 were under 25 years of age.

The largest *whalefish* on record, which may also be a new species, has been caught in the San Clements basin of the Pacific Ocean.

Sound, rather than appearance, may trigger attraction between the sexes of fish in the black depths of the sea.

Three vocational *agricultural schools* have been established in South Viet Nam with U.S. support since 1955 and currently enroll 1,500 students.

If consumer *instalment credit* in the United States grows at the same rate as total output, the amount outstanding, \$67 billion at the end of 1965, will be \$108 billion by the end of 1975.

Bermudagrass, once considered a pesty weed, is now a major crop in conservation farming.

A patrol aircraft fitted with infrared *scanners* is the newest oceanographic tool to map surface water temperature patterns and circulating currents.

The average area of National Forest lands required to support one big game *animal* is about 40 acres.

Medical grade silicone *rubber* is widely used in surgery because of its remarkable inertness in the human body.

A *camera* small enough to be swallowed can take 32 color photographs of the interior of the stomach and supplements X-ray diagnosis of such diseases as gastric ulcer and cancer.

For a flower to produce a perfect cantaloupe there should be one *honeybee* to every 100 flowers.

A harvest rate approaching four *fish* per hour was reached by 30,000 Lake Erie anglers in Ohio from June through mid-October 1965 who caught about 570,000 fish.

The sweet potato *weevil*, which costs U.S. sweet potato growers about five million dollars a year in lost crops, may soon bring about its own population decline as a result of radio-sterilization in which the male parent is bombarded with radioactive cobalt.

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TECHNOLOGY

Instrumented Chair Records Vital Functions

► AN INSTRUMENTED CHAIR that monitors vital functions of the human body—pulse rate, respiration, heart sounds and impulses—with no sensors attached to the person being examined has been developed by Philco Corporation's WDL Division in Palo Alto, Calif.

Called the Automatic Medical Monitor, the chair will enable a busy doctor to have at his fingertips information that normally would require the services of a trained medical technician and the time-consuming use of a stethoscope, electrocardiograph and other clinical instruments.

The upholstery of the chair contains a series of electrical pickups which serve the same purpose as the technician's paste and strapped-on electrodes now used for recording heart impulses and other physiological functions. The minute impulses produced by internal body functions flow through the upholstery and are amplified and recorded for visual examination.

By electronic processing, the resulting signals are converted to the variety of rate, wave form and response data required for diagnosis. The data is recorded on a series of graphs much like those obtained from an electrocardiograph.

The only requirement for the patient is that he be seated comfortably in the chair, with his hands resting on conductive armrests. No paste electrodes or other biotelemetry linkage are needed.

The monitoring system was conceived and put into practical form by Dr. dePaul J. Corkhill, Dr. Mylen E. Fitzwater and engineer Paul G. Halvorson. Dr. Corkhill believes the limits of its applications still are unknown.

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METEOROLOGY

First Hurricane in 1966 To Be Named Alma

► HURRICANES churning up the Atlantic, Caribbean and Gulf of Mexico will be named Alma, Becky, Celia, Dorothy, Ella, Faith, Greta, Hallie, Inez and Judith, in that order.

If more than ten tropical storms reach such strength as to warrant naming, they will be called Kendra, Lois, Marsha, Noreen, Orpha, Patty, Rena, Sherry, Thora, Vicky and Wilna.

The names were selected because they are short, clearly pronounceable, quickly recognized and easily remembered, qualities that are essential since a single hurricane can spark an untold number of phone calls, news bulletins, newspaper stories and messages to millions of people.

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