

In the last two years Fibreglas-plastic combinations have virtually taken over the fields of fishing rods and small boats—and last winter Fibreglas skis, so light and fast that they were not recommended for amateurs, were the talk of the skiing slopes. Glass fishing rods are said to have all the spring and casting action of fine bamboo without the disadvantages. A standard test is to bend the tip of a rod back five inches beyond the handle without breaking. If properly made, these glass rods are good for a lifetime of fishing. The Fibreglas boat has color molded in, cannot absorb water, will not rot, never needs painting or

caulking, is virtually puncture-proof and weighs less than half as much as a comparable wooden craft.

Doctors are heartened by the discovery at the University of Virginia that a gown made from a fabric woven of lead-glass yarns will protect all the vulnerable parts of the body from the X-radiation which causes an incidence in radiologists of deadly leukemia eight times higher than normal. The same fabric is highly resistant to the beta radiation of atomic-fission products—a note of hope for all of us in this atomic age.

Science News Letter, June 17, 1950

MEDICINE

Conquest of Heart Ills

► PROGRESS is being made in the battle to conquer heart disease. Through scientific research we will find the cause of and means of preventing much heart disease.

This was the opinion of Dr. Cassius J. Van Slyke, director of the National Heart Institute of the Public Health Service, one of the country's top research scientists and medical administrators. He spoke on Adventures in Science over the Columbia Broadcasting System as the guest of Watson Davis, director of Science Service.

"Over the past 25 years," said Dr. Van Slyke, "there have been greater scientific advances in the understanding of heart disease than in all the years before."

Dr. Van Slyke explained that the National Heart Institute which was set up under a law of Congress, is working not only on the heart and circulatory system, but on interrelated organs and systems, hereditary and environmental factors, nutrition, physiology and the whole aging process.

Within the past few months, he said, nearly 500 research grants have been awarded, totaling nearly \$5,500,000. And more than \$6,000,000 have been awarded for construction of new laboratory facilities to 25 institutions in 16 states.

A new Clinical Center will be ready about July, 1952, Dr. Van Slyke reported, to be used by new research groups, the nuclei of which are being established now.

Science News Letter, June 17, 1950

AREONAUTICS

Escape Hole in Plane Can Be Cut by Explosion

► PASSENGER escape from burning, crashed airplanes is expected to be aided by a device developed in England that eases the job of cutting an escape hole through the walls of the plane. It utilizes a shaped-charge explosion.

As described in London by an aviation authority, a line-charge, looped into a rectangle and specially shaped to give a punch in the right direction, blows a hole in the side

of the plane. The line charges are made in the form of a tube, the explosive in the center like the wire in an electric cable.

The shaped-charge can be embedded in a semicircular cover, the flat side being coated with an adhesive to give close contact. This gives the shaped-charge effect. When fired, the explosive concentrates its energy against the side of the structure, giving a cutting performance much superior to a similar round charge.

In use in a burning plane, the device is held against the side of the fuselage on the end of a long arm and fired from a distance. Passengers inside the plane would not be injured by the explosion unless they were leaning against the panel blasted out. The idea of this shaped line charge was developed for use in crash fires when it became evident that ordinary break-in tools are ineffective.

Science News Letter, June 17, 1950

ANTHROPOLOGY

Brain Pattern Clue To Human "Missing Link"

► NOBODY has discovered the remains of a human "missing link" yet, but when somebody does, it will be easily identified by the evidence of its brain pattern on the inside of its skull.

This is the conclusion of Dr. Cornelius J. Connolly, professor of physical anthropology at Catholic University in Washington, after the study of 538 brains from more than 50 species in the vast collection of the U. S. National Museum.

Dr. Connolly said that the skulls of the so-called ape men found in South Africa show that those creatures were definitely anthropoid rather than human.

The anthropologist, who has recently published a book based on his research, EXTERNAL MORPHOLOGY OF THE PRIMATE BRAIN, started with the brain of lemurs, lowest of the primate family and worked upward to human brains. He also studied the skulls of many prehistoric creatures which had on the insides markings left by the brain patterns.

There is a definite distinction between the brains of humans and of the most highly developed ape—the chimpanzee, he said. One of the distinctions is in the part of the brain which controls speech.

"The brain is the most important factor in distinguishing between prehistoric men and apes," he declared. "No skull has yet been found which shows an intermediate stage between the brain of the ape and that of man."

Some other anthropologists, however, would not agree with Dr. Connolly that the brain pattern is the most important factor. Some remains, although they show evidence of ape-like brains, have leg formations almost exactly like human beings, enough like them to permit the creatures to walk on their hind legs.

Science News Letter, June 17, 1950

ATOMS PLANETS & STARS Astronomical Wall Chart

(Not A Star Map)

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GRAPHIC ILLUSTRATIONS

Dr. Albert Einstein wrote as follows:

"I was extremely pleased to receive your beautiful drawing which gives a vivid representation of our solar system. I have hung it on the wall of my room to look often at it. Sincerely yours."

—A. EINSTEIN.

"The drawing is excellent and informative. You certainly have given an enormous amount of information in a limited space."—DR. FOREST RAY MOULTON.

"I have never before seen the various features of the solar system and the earth shown so skillfully."—DR. M. M. LEIGHTON.

"The author has produced for display in school or study, a useful quick reference sheet for the student of elementary astronomy."—JOURNAL OF THE BRITISH INTERPLANETARY SOCIETY, London.

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