ICHTHYOLOGY

Mystery Eel Discovered By Fossil Fish Finder

➤ THE SCIENTIST responsible for the discovery of a coelacanth, a fish thought extinct for 50,000,000 years, has turned up a new "mystery fish" from an island off Africa's east coast, near where the coelacanth was captured. (See SNL, Jan. 17, p. 38.)

Prof. J. L. B. Smith of Rhodes University in Grahamstown, South Africa, has found a single, lonesome eel in an isolated body of water on the "eel-less" island of Zanzibar.

Because of the highly porous nature of the island, there are few bodies of fresh water on Zanzibar, Prof. Smith said, and the only river on the island disappears before it reaches the sea. Only three or four fresh-water fish, and no eels, had been reported from Zanzibar, Prof. Smith said.

Then, during a recent visit to the island, Prof. Smith heard of a large "water snake" that had been seen in an abandoned reservoir. He followed a hunch, the same kind of hunch that led to the discovery of the coelacanth, and had the reservoir drained.

There in the mud wriggled a 30-inch well-nourished eel, *Muraena mossambica.*

"This spring lies less than half a mile from the sea," Prof. Smith said, "but how the fish got into it is a mystery, as no water has ever flowed out of it, and the manholes in the roof of the enclosing structure have iron covers, supposed to have been kept closed for many years."

Previous records of eels from "Zanzibar" referred to specimens from African mainland near Zanzibar, not the island itself, Prof. Smith said. This discovery was reported in *Nature* (Jan. 17).

Science News Letter, January 31, 1953

Do You Know?

Almost every American family now has a *car.*

Olive trees must get some winter chilling to be commercially fruitful.

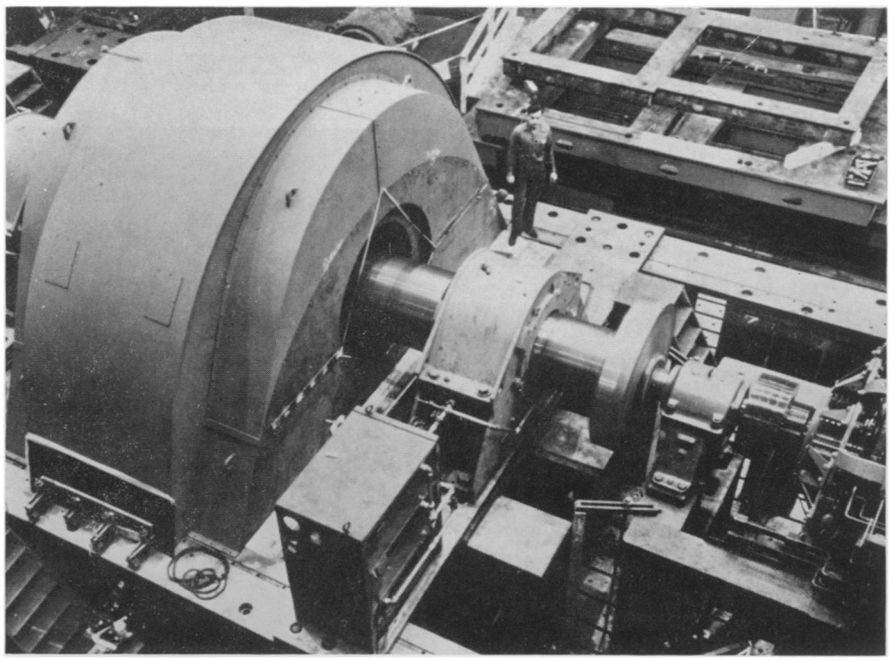
The *picture* on a TV screen is composed of about 210,000 tiny dots.

Potatoes are one of the few commodities grown commercially in every state.

The world's yearly output of *cement* is sufficient to pave a road 150 feet wide and eight inches thick around the equator.

Sirius, the brightest *star* in the sky, is over 4,000,000,000 times brighter than the faintest star photographed with the 200-inch Hale telescope atop Mt. Palomar.

When *grapes* were displayed both in bulk and in cellophane bags, sales were 17% higher than when either of those displays were used alone, a research study shows.



POWERFUL MOTOR—Shown here is what is claimed to be the world's most powerful motor, one of two rated at 83,000 horsepower each. Combined in tandem fashion with its "twin" and two 25,000 horsepower motors, it will make up a four-motor drive for Air Force wind tunnels at the Arnold Engineering Development Center in Tullahoma, Tenn.

AERONAUTICS

Air Power Long-Range

➤ LONG-RANGE TRIPS by scheduled jet-propelled airliners between England and South Africa and Ceylon are being flown with success, but aviation experts are not yet wholly convinced that jet propulsion is the best type of power for international air transports.

It is the speediest form, it is acknowledged, but it is not the most economical. The large amount of fuel the jetliners consume makes long-range non-stop flights impractical.

Other types of power plants now available provide speed considerably greater than conventional reciprocating engines. They are said to be economical and they may be able to meet the speed expectations and demands of the flying public.

Two such power plants are the turbo-prop and the new turbo-compound engines. Both have been thoroughly tested and both are now in use in commercial planes.

Air France, operator of an airplane network covering much of the globe, will soon be operating transports powered by jets, turbo-props and turbo-compounds, and later will be able to evaluate the efficiencies and deficiencies of each. It is planning to operate the new American Lockheed Super Constellation between Europe and America, British Viscounts on its European network, and British Comets mostly on services in Africa and the Middle East.

These new Super Constellations are powered with turbo-compound engines, a product of the Curtiss-Wright Corporation. This type of power plant consists of a very powerful piston engine with added turbine mechanisms that operate on the exhaust gases from the conventional engine. Low operating cost is one of its features. The Constellations with this power will have a maximum speed approaching 400 miles an hour.

The Viscounts are turbo-prop planes. This type of engine is a gas turbine that operates conventional propellers. Such planes are claimed to be economical because the gas turbine is a high efficiency engine for the amount of fuel it consumes.

Comets are powered by turbo-jets, the engines used in speedy fighter planes and in several bombers. The first jet-propelled Comet entered commercial transport service in May, 1952, on a route from London to South Africa with several stops en route for refueling.

Science News Letter, January 31, 1953

Weight for weight, the hovering *hummingbird* consumes almost as much energy as a modern helicopter.

Persons can see subtle differences in *colors* better if they are standing than if they are lying down.