



ON TOP—Jungfrauoch in the Swiss Alps is one of the oldest, most well established high altitude research stations. Equipment is carried to the station through a four-and-a-half mile tunnel, to give entry to the outpost in all weather.

ICHTHYOLOGY

Salmon May Smell Its Way to Spawning Place

➤ IS IT the silver salmon's sense of smell that leads it back to spawn in the same stream where it was born?

Field tests just begun at Quilcine, Wash., may give the answer to this mystery in three or four years. For then, fingerling silver salmon now being raised in water into which very small amounts of strong-smelling chemicals are dripped will be returning to spawn.

Fishery biologists hope that, by putting the same small amounts of the same odoriferous chemicals into water of other streams at that time, silver salmon may be diverted to different spawning grounds. Laboratory tests have shown that the fish can easily smell the difference between waters of two streams, Drs. Arthur Hasler and Warren Wisby of the University of Wisconsin and William Hagen, Jr., of the U. S. Fish and Wildlife Service report.

Specially built aquariums, where water can be changed and new odors introduced without disturbing the fish, were used to show that the salmon have extremely sharp noses. In one end of each aquarium there is a feeding area equipped with a light electrical shocker.

The scientists found that it does not take the fingerlings long to learn that water from one stream means food is available, while water from another brings a mild shock. The fish keep the ability to

tell two different streams for a long time, even after testing is discontinued.

If the field tests show that they keep their smell memory until spawning time, odors could be used to entice salmon to selected streams for spawning.

Science News Letter, August 18, 1951

AERONAUTICS

Flying Boat Floating Dock Totes Big Planes to Shore

➤ A SORT of floating dock revealed in College Point, N. Y., can crawl under a giant flying boat that has landed in the water, float it toward the shore, then carry it high up on dry land to a parking platform.

This seaplane beaching gear, as it is called, is a self-powered device that can submerge itself, move forward, backward or sideways, or crawl onto sandy beaches on its own treads.

In general it resembles the floating docks used to handle large surface ships and raise them out of water for repairs. It has two vertical flotation units spaced far enough apart to accommodate the hull of a flying boat.

A cradle between the flotation units, fitted with adjustable pillows, supports the hull. In picking up a flying boat, the units are partly filled with water. It can then crawl under the tail of the plane and forward to a point under the plane's center of gravity. Then the water in the flotation units is replaced by air.

The gear is propelled by two engines at diagonally opposite ends of the floats. These propellers can be rotated through 360 degrees which permits movement in any direction. As the shore is approached the operator of the beaching gear transfers the power from the propellers to three caterpillar treads under the device. This permits it to travel over normal beach sands.

This beaching gear was built for the U. S. Navy by the Edo Corporation.

Science News Letter, August 18, 1951

INVENTION

Puncture-Proof Tire Is Solid With Air Tubes

➤ AN AUTOMOBILE tire, claimed to be safe from such road hazards as punctures, blowouts, cuts and bruises, is described by the inventor as an air-bearing solid tire. Patent 2,563,446 was awarded on it to Sidney Halpern, Jacksonville, Fla.

The tire has a base strip to fit the rim of the wheel and a casing with tread as ordinary tires. Inside construction is different. Running around the center is a number of rubber tubes with aid sealed within them. Outside of these are other rubber tubes running in a crosswise direction. These are held apart by horseshoe-shaped wedges. The whole is vulcanized into an integral mass.

Science News Letter, August 18, 1951



Stimulating Books in the field of Human Behavior

- Bases of Human Behavior:**
A Biologic Approach to Psychiatry
by Leon J. Saul, M.D.
New, 1951. 150 Pages. \$4.00
- Emotional Maturity:**
The Development and Dynamics of Personality
by Leon J. Saul, M.D.
1st Edition, 1947. 339 Pages. \$5.00
- Principles and Practice of the Rorschach Personality Test**
by W. Mons, M.R.C.S., L.R.C.P.
2nd Edition, issued in America in 1951.
176 Pages. \$4.00
- Handbook of Psychiatry**
by Overholser and Richmond
1st Edition, 1947. 252 Pages. \$4.00
- Crime and the Mind**
by Walter Bromberg, M.D.
1st Edition, 1948. 219 Pages. \$4.50
- Saints, Sinners and Psychiatry**
by Camilla M. Anderson, M.D.
1st Edition, 1950. 206 Pages. \$2.95

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