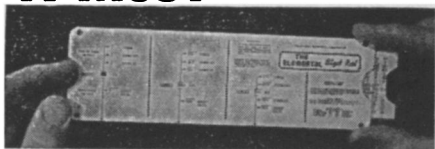


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INVENTION

Patents of the Week

Commercial fishermen will be able to catch fish scientifically with a tiny device the size of a soup can that traces the underwater path of the net—By Elizabeth Hall

► A TUBE the size of an ordinary soup can, designed to give fishermen a larger haul when they pull in their nets by tracing the path of the net underwater, received patent 3,104,928 from the U.S. Patent Office in Washington, D. C., this week.

Invented for use in commercial tuna fishing, the tube, called a bathkymograph, is attached to the net. As the net is lowered, sometimes as deep as 240 feet, the bathkymograph begins to trace depth against time.

It is important to the fisherman to know how fast his net will sink in relation to the water pressure, since fish try to dive under the net if they become frightened.

A simple, rugged device, it is probably the first inexpensive, operational bathkymograph applied to fishing and it may be available in the near future, Dr. Julius Rockwell of the biological research division of the U.S. Fish and Wildlife Service's Bureau of Commercial Fisheries told SCIENCE SERVICE.

The instrument can be used also to verify predicted tidal extremes by placing it on the sea bottom before high or low tide. Fishermen who trawl or drag their nets along behind a moving boat also can use it in determining the depth of their nets.

Frank J. Hester of the Fish and Wildlife Service's biological laboratory at San Diego, Calif., assigned patent rights to the Department of the Interior.

Remote-Controlled Dust Sampler

A remotely controlled atmospheric dust sampler that is in extensive use at the U.S. Atomic Energy Commission base in Han-

ford, Wash., earned patent 3,104,542 for Max F. Scoggins of Richland, Wash.

Dust samplers have been placed at various spots in a general area, all connected to the same vacuum source that draws air through the sampler. No electrical wires or relay systems are necessary to set off the atmospheric test.

As the vacuum source starts to draw in air, the diaphragm cover is drawn inward, releasing a hinge at the top and causing the plate covering the filter to open completely. Air, drawn toward the vacuum, flows through the filter which is later removed for testing the captured dust.

Assigned to the Atomic Energy Commission, this device is valuable when a sudden increase in radioactive dust in the atmosphere makes it imperative to test the atmosphere immediately.

Radioactive Grape Vines

The Oak Ridge Atom Industries at Oak Ridge, Tenn., received rights to a patent for a process of harnessing the atom's power to produce bigger and better grapes.

By exposing swollen buds on the grape vines to gamma rays from cesium 137 and cobalt 60, the chromosome number in such varieties as American, California and Muscadine, was doubled, producing larger fruit.

Clarence J. Speas of Clinton, Tenn., and Paul L. Andrews of Oak Ridge, Tenn., found that the vines should be irradiated at a rate between 50 and 100 roentgens or X-rays per minute until the total dosage is between 2,200 and 2,400 roentgens.

The method listed in patent 3,104,497 calls for fertilizing the one-year-old grape vines, 40 days before radiation, with 3-10-6 fertilizer, and every ten days thereafter.

Other Significant Patents

Instead of padding football players, Leo A. Doyle of Spokane, Wash., is padding the goal posts with resilient jackets held in place by springs. Patent 3,104,875 will prevent injuries to players who collide with the posts during the game.

A fish caller that buzzes like a bug and lights up under water received patent 3,105,233 for Michael J. D'Amore of Milwaukee and Lewis D. Thill of Elm Grove, Wis. Rights for the patent were assigned to the A-1 Construction & Sales Corporation of Elm Grove, Wis.

An Arkansas inventor has designed a compass that draws ovals or ellipses instead of circles. Charles W. King of North Little Rock received patent 3,104,466 for his instrument in which the user can choose the desired angle of the ellipse.

• Science News Letter, 84:238 Oct. 12, 1963

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