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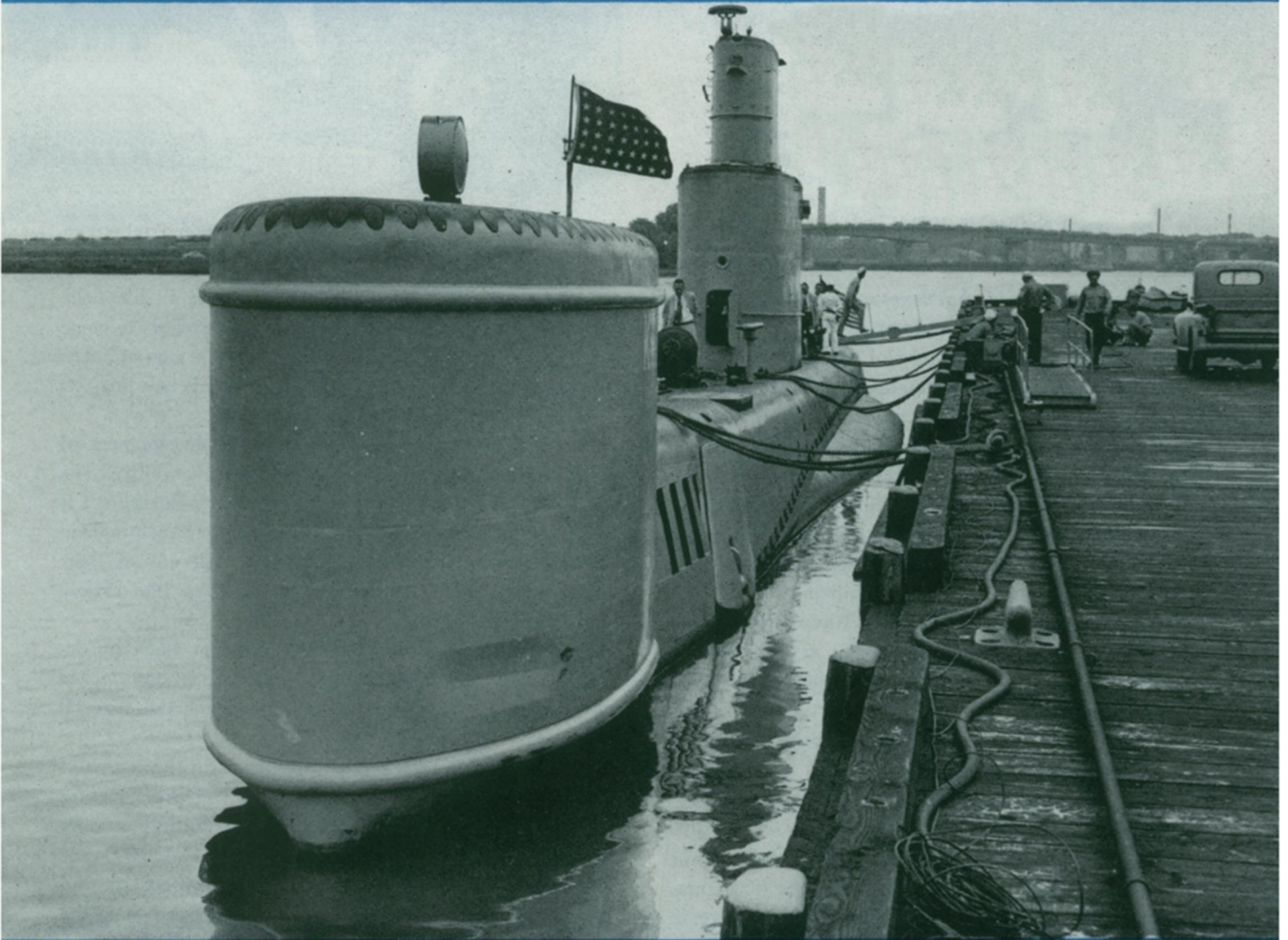
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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Anti-Sub Sub

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A SCIENCE SERVICE PUBLICATION

Adventurers in Research..

Dr. Clinton R. Hanna

SCIENTIST-INVENTOR

Hoosier-born scientist whose gun stabilizer revolutionized tank combat during World War II. He enrolled in Westinghouse graduate student course right after graduation from Purdue University in 1922. His inventive talents earned him rapid advancement to head of Development Division in 1930, Manager of Electromechanics Department in 1937, and Associate Director of the Research Laboratories, his present position, in 1944.

Where human muscles and reflexes aren't quite up to the job, the electromechanical regulator can do it many times faster and more accurately. Proof of that is in the career of Dr. Clinton R. Hanna, who has developed a whole family of these devices in his 30 years with Westinghouse. It was his gyroscope-controlled gun stabilizer that during World War II enabled Allied tanks to fire accurately even when traveling over rough terrain, and helped swing the tide of battle against the enemy in Africa. When heavy seas sent ship-based radar antennas bobbing erratically, Dr. Hanna designed a system for stabilizing them in the roughest weather. And when the U. S. Navy sought a way for submarines to lie perfectly motionless and quiet below the surface, Dr. Hanna was one of the men called upon to tackle the problem.

The soft-spoken, 51-year-old Westinghouse scientist has some 100 patents to his credit in the field of regulators. One of his earliest was a device for controlling the speed of steel mill roller motors. Strangely enough, it was this device which led a visiting Army officer to wonder if the same principle could be applied to stabilizing tank guns. Dr. Hanna thought it could and proceeded to prove it. Now an improved version for modern U. S. tanks is on the production line.

Quiet and methodical, the Westinghouse scientist likes



to probe for new and difficult applications in his field. isn't swerved by the failure of previous searchers to come up with the right answers. Still a laboratory man at heart, he spends as much time looking over budding, new projects as he does at his associate director's desk.

Dr. Hanna's latest achievement is the development of an automatic pilot with unlimited maneuverability. The conventional autopilot just doesn't have this flexibility; if called upon to perform loops, rolls, or other such maneuvers, its gyroscopes will "tumble" or fall out of their original alignment, causing the plane to go into erratic and dangerous gyrations.

The Westinghouse scientist solved the problem by devising three non-tumbling gyroscopes that stay locked to the plane no matter what maneuvers the aircraft employs.

These are but a few of the high lights in the career of "Clint" Hanna, adventurer in research. The larger picture should certainly include many other contributions, mainly those that have aided in the improvement of numerous Westinghouse products that feature electrical control and regulation. They make it abundantly clear that it is the know-how and experience of scientists like Dr. Hanna which are the cornerstones of industrial progress. Westinghouse Electric Corporation, Pittsburgh, Pennsylvania. G-10228

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