## Sir Arthur P. M. Fleming Dies; Researcher on Radar Was 80

Developer of Manufacturing Methods Also Aided Work on Submarine Detection

Special to The New York Times.
LONDON, Sept. 14—Sir Arthur P. M. Fleming, whose development of electronic techniques helped to make radar possible, died today at his home near Shanklin on the Isle of Wight. He was 80 years old.

Sir Arthur played a leading role in perfecting methods for manufacturing vacuum highvoltage equipment and thermivoltage equipment and thermi-onic valves, component parts of radar. A pioneer in the devel-oping of submarine-detection equipment, he received honors during World War I for his work in this field.

## Aided Westinghouse

Sir Arthur was with the Westinghouse Electric Company in Pittsburgh from 1900 to 1902, and then with British Westinghouse, subsequently the ceived honorary degrees from Metropolitan Vickers Electrical Company, in Manchester. For this company he was insulation that they are found to the ceived honorary degrees from the Universities of Manchester and Liverpool. He was knighted in 1945 for his services to education expert, then transformer designer and, later, manager of

bury Technical College in Lon-

He had served on the governing body of the Imperial College of Science and Technology, the delegacy of City and Guilds College, the War Cabinet Engi-neering Advisory Committee and Lord Hankey's Technical Personnel Committee in 1941.

Sir Arthur was a member of the Technical Personnel Committee set up in 1951, the Board of Education Committee on Training of Teachers and Youth Leaders, and the National Advisory Council for Further Edu-

For his work in technical education and research he re-



Sir Arthur P. M. Fleming as he looked some time ago.

cation.

signer and, later, manager of research and education.

He was a member of the Ministry of the Labor Advisory Council of the Central Register in 1938 and chairman of the Electrical Engineering Committee of the Central Register Hawksley Medal of the Indiana. Electrical Engineering Committee of the Central Register of the Ministry of Labor in tion of Mechanical Engineers in 1937 and the Faraday Medal of Sir Arthur was educated at the Institution of Electrical En-Portland House Academy on the Isle of Wight and at Fins-mer president, in 1941.

(H'14, F'34, MFL) new york James 9/15/60

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