



Herbert Smith— Aircraft Designer

by JOHN CRAMPTON*

Herbert Smith with his R.Ae.S. Honorary Companionship Certificate, photographed in January this year at his home in Yorkshire

HERBERT SMITH was elected an Honorary Companion of the Royal Aeronautical Society earlier this year in recognition of his outstanding contribution to aviation during World War I. Today he lives in retirement in Yorkshire. This election cannot be allowed to pass without some explanation of the important activities of the recipient of this honour during his early years in aviation.

It is not easy to recapture the precise atmosphere of an earlier age and recall matters just as they were because time itself has an eroding effect on the memory of those who try to remember exactly what happened. The historian, who was not even around at the time, has to rely upon selecting such facts as he can gather and then reproduces a period, or series of events, as carefully as a painter selects his colours to make a whole picture.

The early life of Herbert Smith is the subject of this historical review, and the author is keenly aware that Herbert Smith himself is very likely to read this account of his days as an aircraft designer. All the evidence indicates that he spent his active years in aviation leading a team, and it was

a team that produced some very successful results.

Herbert Smith was born in the village of Bradley, near Skipton, on 1st May 1889, his father being the Chief Accounts Clerk with the railway at Bradford, and his brother became a local Bank Manager.

He attended the village school in Bradley and later went on to the Keighley Grammar School. On leaving school his education took a more scientific turn when he enrolled at the Bradford Technical College to study Mechanical Engineering. In his class he was one of the three students who were able to qualify for their Diplomas.

After his studies were completed Herbert took a job to gain practical experience, joining Dean, Smith & Grace of Keighley, a firm making machine tools who are still very much in business today. From there he sought design and drawing office experience with Smith, Major & Stephens who manufactured lifts in Northampton.

Having acquired a sound basic training in various aspects of mechanical engineering, Herbert then became involved in the world of aircraft manufacture. He secured a position with the British & Colonial

Aeroplane Co., at Bristol, working under Capt. Frank Barnwell and M. Henri Coanda, until 1914, when he moved across to Sopwith Aviation at Kingston-upon-Thames as leading draughtsman.

Sopwith had formed his company two years earlier in the disused roller skating rink in Canbury Park Road. The company had by 1914 expanded into new and larger offices further down the road. Tom Sopwith was still the lively supervisor of design but inevitably was becoming more and more engrossed with general management. To relieve him of accountancy tasks a young man called Frank Spriggs had been engaged as costing book-keeper and, for better control of technical matters, Herbert Smith was soon appointed chief designer. R. J. Ashfield, the former school master from nearby Tiffins School, who had been with Sopwith as his first draughtsman since October 1912, was given the role of project engineer and with a small carefully selected staff in the experimental department prepared initial designs from basic instructions and interpreted thoughts into working drawings. Among the first of such concepts was the Pup, the forerunner of which was built round a 50-h.p. rotary Gnome engine and had warping wings.

Herbert Smith, fair haired, with steel blue eyes, was an up and coming young man, who got on well with Sopwith's great factotum, Fred Sigrist, who in effect was the company's chief engineer, and quickly assimilated Sigrist's forcibly expressed ideas on the type of detail design which suited the company's skills and production facilities. He had a score of men on stressing and drawing, among whom was Sid Burgoyne, son of a famous boatbuilder at Kingston, who was the specialist in float design.

Herbert Smith (in white sweater, second row) with the Sopwith Aviation Football Team, 1915



1½ Strutter

Smith's first major task was to modify the design of an early company aircraft, the "Sigrist Bus", to give the aircraft equal span wings with the lower one moved slightly rearwards to improve the position of the centre of gravity. This aircraft resulted in the first of many 1½ Strutters made by Sopwith and a number of contractors in this country for the R.F.C., in addition to other manufacturers in France for the French Air Force. Smith worked closely with Sopwith, Sigrist, Harry Hawker and Ashfield on the design of the company's aircraft. It was Hawker who appreciated that the best handling qualities for a fighter would be derived from con-

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