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Samuel Field – founding father of the IMF

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If anyone can claim to have founded the Institute it would be Samuel Field, although in practice he was the driving force for a small group to meet and take the decision in 1925. At that time metal finishing had a strong hold in East London and the Northampton Polytechnic was not only a meeting place but could offer basic training courses in a subject that was strongly craft based with not too much science. Samuel Field was the man who identified a need and set out to satisfy that need.

Samuel Field was born in the Birmingham district of Winson Green on 8 April 1875. At the age of 13 he won a scholarship to study at the Midlands Institute, from which he went to the Royal College of Science (now part of Imperial College London) to study chemistry. He graduated with the ARCS and BSc(Lond) degrees and took a number of teaching posts including at Croydon Technical College, an area in which he lived for much of his life. He was head of the Department of Technical Chemistry at Roehampton Polytechnic but it was at Northampton Polytechnic in Clerkenwell that he exercised his greatest influence. He had been a member of the Faraday Society since 1911 and had noted the growing commerce in electroplating based on sketchy science and set about training himself through the City and Guilds education programmes, becoming an honours medallist in electrometallurgy. Thus equipped he began evening courses in the early 1920s finding a group of enthusiastic supporters who sought a means of sponsoring discussion meetings which the Faraday Society felt unable to satisfy. However, they were happy to support the creation of an associated society to meet this need. Samuel Field was the focal point and he convened a meeting on 11 November 1925 at which a decision was taken to found the Electroplaters and Depositors Technical Society (EDTS); a list was made of the founder supporters and subscriptions taken. The list contained leading names such as Spiers, MacNaughton, James, Harris and Field; and others were added within months including the young Simon Wernick. The formal founding was therefore on 11 November from which meeting Field became the first President, William Harris the first secretary, William James the first treasurer. Donald MacNaughton and Frederick Spiers were the sponsoring members from the Faraday Society.

Portrait of Samuel Field at the time of his Presidency (1926–29)

Amongst the decisions taken were the need to promote and record technical discussions, hence the Transactions (of the EDTS) was founded with volume 1 published in 1925–26, courses were commenced with formal structure at the Polytechnic, and a textbook was sponsored (co-authored with Dudley Weill), appearing in 1930 as ‘Electroplating: a survey of modern practice’. While his earliest textbook was published in 1911, a later one in 1944 also took the main title of ‘The principles of electrodeposition’, but gave the rather different emphasis of electrochemistry; neither, however, captured the student need in quite the same manner as the joint one with Weill. Nevertheless these books were important both for teaching and helping the managers of plating shops to relate science to practice; this approach was apparent in Field’s willingness to address the regular EDTS discussion meetings with reviews of current practice in the light of scientific principles.

Basic research was not Field’s forte and he obviously was happy to leave it to industrial laboratories, notably at Woolwich Arsenal led by MacNaughton and Hothersall. The books are notable for practical developments, one of which he encouraged related to the measurement of throwing power. An American formula was in use in 1920 giving a range of values from 0 to 80%; he strongly encouraged use of a revised formula giving symmetrical values from −100 to +100% and this was adopted as a British Standard in the 1930s on the basis of his test results. The books also did much to standardise the chemical methods of solution analysis.

Field retired in 1940 but during the war he taught science at Poole Grammar School as a staff replacement. After the war he returned to Croydon where he died on 6 November 1965 at the age of 90, having been active to the end. His affinity to general science and the need to popularise it was also seen in his work as science correspondent of the Daily Telegraph during the 1920s. After 1945 he retired quietly and took little further part in the Society and the later Institute.

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The EDTS and Institute of Metal Finishing honoured him in several ways. He was first President, serving for four years from 1925 to 1929, and became the first honorary member in 1951. The Gold Medal was instituted in 1947 and he was selected to be the first recipient. The Institute must forever be in his debt for his leadership in creating the Society that we now know as the Institute of Metal Finishing.

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