

brief period it was in session, was unable to give sufficient time and consideration to the various problems affecting Museums in India. It was the unanimous opinion of those present that various questions relative to the training and qualifications of Curators, the co-operation necessary to this end, the improvement and extension of the services of Museums to the nation, the elimination of unnecessary overlapping and duplication of effort, the solution of many problems with which Museums in this country are confronted and the removal of disabilities under which they suffer were all matters which could be considered with greater advantage by a permanent body. An organisation such as is contemplated would prove of great encouragement and helpful assistance particularly to smaller museums which are now struggling under difficulties with little expert knowledge to guide them. It will also provide a body to which those contemplating the establishment of Museums or Art Galleries can look to for guidance and it will be able to express authoritative opinion on matters relating to such institutions.

It is clear that without a permanent organisation for focussing and continuing effort, the work of periodic conferences of Curators would

be largely ephemeral. It is unnecessary further to emphasise the need of such an organisation or to indicate the contribution it could make to the progress of Museums in this country. The cost of maintaining a Standing Committee would in the initial stages entail the salary of a clerk, the cost of postage and stationery; there would also be the question of travelling and halting allowances to the members of the Committee for attending meetings arranged periodically at various centres in India.

Resolution 4 of the Conference recommended that the cost of maintaining the Standing Committee should be borne by the Government of India. It is understood that the Government of India have approached the various Provincial Governments and States with a view to ascertaining how far they would be prepared to contribute towards the maintenance of a permanent Standing Committee. The establishment of the Central Standing Committee should be the preliminary to the forming of a Museums Association and the question as to whether this Committee will function is dependent on the various Governments and States concerned providing for its upkeep.

## CENTENARIES

By S. R. Ranganathan, M.A., L.T., F.L.A.  
(University Librarian, Madras)

### O'Callaghan, Francis Langford (1839-1909)

**F**RANCIS LANGFORD O'CALLAGHAN, an Irish Indian Engineer, was born at Cork, July 22, 1839. Having been educated at Queen's College, Cork, he received his training in engineering between 1859 and 1862, when he was employed in railway construction in Ireland and South Wales. In 1862 he entered the Public Works Department of India by competitive examination. He steadily went up the cadre until he reached the top-position of Secretary to the Public Works Department, from which post he retired in 1894.

#### HIS CHIEF CONSTRUCTIONS

He built the bridge across the Indus at Attock. This earned for him a C.I.E. He designed and partly constructed the railway through the Khoja Pass to the Afghanistan frontier. He also built the railway line to Quetta. This earned him a C.S.I.

On his retirement, the Colonial Office appointed him managing member of the Uganda Railway Commission. His services in connection with this undertaking were rewarded in 1902 with the K.C.M.G.

O'Callaghan died suddenly, November 14, 1909.

### Balbach, Edward (1839-1910)

**E**DWARD BALBACH, an American metallurgist, was born in Karlsruhe, Baden, Germany, July 4, 1839. His father, who was engaged in the smelting and refining of metals,

migrated to America with his son and opened at Newark, the centre of extensive jewellery manufacture, a business for the treatment of jewellers' sweepings, which formerly had been sent to Europe. This business steadily grew and was extended to the general metallurgy of silver-lead ores. Young Balbach began to help in the growing business in his fourteenth year. He was admitted a partner in 1864.

#### BALBACH PROCESS

From 1859, large consignments of silver-lead ore came for smelting and refinement. The methods for treating this material were both expensive and inadequate. But in 1864, Balbach introduced a great improvement in the desilverizing process, which revolutionised the methods. The process came to be known as the Balbach Process. Balbach also made many improvements, as for instance, retorting furnaces, tilting furnaces and the utilisation of water-jackets.

#### ELECTROLYSIS OF COPPER

Another notable achievement of Balbach was in 1881 when he built the first commercial plant in America for the refining of copper by electrolysis, laying the foundation for the position America reached in the business in later years.

#### HIS QUALITIES

His inventive genius was coupled with a practical bent of mind. He studied and learned the business from the bottom up, with a tireless energy and zeal. His presence at his post both early and late set a constant and good example to the younger generation.

Balbach died of pneumonia December 30, 1910.