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Editorial comment

ONE OF THE MOST IMPORTANT WORKS received in the office of the *Magazine* for some time is the manual, *Instrucción h.a. 61 especial para estructuras de hormigón armado*, recently published by the Instituto Eduardo Torroja de la Construcción y del Cemento in its series of Normas y Manuales. The first volume is essentially an up-to-date version of the earlier work "h.a. 58", but the second and third parts represent the completion of the work of the late Director of the Institute, Eduardo Torroja, and are now published posthumously in one volume, which is given the special title "Instrucción Eduardo Torroja". Although their principal author was unable to finish them, they have been completed by his team of associates, under the leadership of the new Director, Jaime Nadal. They have endeavoured to keep to the individual style of their originator, whose massive contributions to the development of reinforced and prestressed concrete can be seen, not only in Spain, but all over the world. Parts two and three are separately entitled "Contract documents" and "Design of longitudinal members", the latter section being based on ultimate load design methods for reinforced concrete members. In addition to the practical recommendations there is a detailed discussion of the formulae presented and a number of worked examples which add to the value of the work.

In addition to the two volumes mentioned, there is a slim third volume containing notation, definitions and design formulae.

In the short time since we received this extended work in Spanish, we cannot pretend to have made a detailed assessment of its provisions, but we are anxious to draw our readers' attention to it, since it is without doubt a major work carried to completion by dedicated workers inspired by one of the great masters of concrete. Moreover, we wish to mention it at the first opportunity because the Institute is not satisfied

with mere publication, but is willing to answer, free of charge, any queries regarding the mode of application of the specifications contained in it received within twelve months of publication. This offer is international.

June 1961 saw the passing of another great master: Eugène Freyssinet. As a young highway and bridge engineer at Moulins, Freyssinet had, in the course of his duties, to design a number of reinforced concrete bridges and other structures. He realized the inadequacy of the official design procedures but was not then in a position to do anything about them. In 1914 he went into industry, joining Limousin & Cie, with whom he stayed until 1928. During and after the war he was responsible for much reconstruction as well as new work, involving roofs of various shapes and spans as well as many bridges, and was continually experimenting, never remaining satisfied with earlier solutions if he saw scope for further development.

From 1925 onwards it was possible for Freyssinet to devote more time to research into concrete, and from 1928 he concentrated all his efforts upon developing the idea of prestressed concrete which had been in his mind much earlier. His own earlier work on vibration pointed the way to improved concrete, but he still had to wait a little longer before high-tensile steel of suitable quality became available. It was in strengthening the foundations of the Gare Maritime at Havre in 1933-5 that Freyssinet proved his technique in practice. After that canals, dams, bridges and other structures followed.

The hard work and single-minded purpose of one man had brought about prestressed concrete. This has become one of the leading structural materials of the day, and an international organization devoted to it was formed in 1951 which already has affiliated groups in more than thirty countries spread throughout the world. It is a tribute to the rapid advances of this new technique that the Fédération Internationale de la Précontrainte, even in M. Freyssinet's own lifetime, has already held four major international congresses.

CORRIGENDUM

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Page 64, Figure 3: the scale for UNIT WEIGHT (AIR-DRY)—lb/ft³ should read

" 95, 100, 105 " instead of

" 950, 1,000, 1,050 "