



Professor Petr Fedorovich Papkovich (1887 – 1946)

From: The Great Soviet Encyclopedia, 3rd Edition (1970-1979). Born Mar. 24 (Apr. 5), 1887, in Brest-Litovsk (now Brest); died Apr. 3, 1946, in Leningrad. Soviet scientist and naval architect. Corresponding member of the Academy of Sciences of the USSR (1933); rear admiral of engineers. After graduating from the St. Petersburg Polytechnic Institute in 1911, Papkovich helped design and build warships and passenger vessels. Beginning in 1916 he lectured on structural mechanics at the Leningrad Polytechnic Institute, where he eventually became a professor (1925–30). From 1934 to 1940 he was a professor at the Leningrad Shipbuilding Institute, and from 1934 at the Naval Academy. Papkovich's major works dealt with the structural mechanics of ships. He developed and refined design methods for ship components. His works on the theory of elasticity are of great importance. He investigated the general theorems of elastic system stability and developed and substantiated experimental methods for the study of ship strength. Papkovich is the author of the textbook *The Structural Mechanics of Ships*. He was awarded the State Prize of the USSR (1946), two Orders of Lenin, two other orders, and various medals.

Biography (from Karl-Eugen Kurrer, *The History of the Theory of Structures from Arch Analysis to Computational Mechanics*, Ernst & Sohn, 2008, 848 pages):

PAPKOVICH, PETR FEDOROVICH *5.4.1887 Brest-Litovsk, Russia, †3.4.1946 Leningrad, USSR.

Papkovich completed his school education at the classical grammar school in Samara with a gold medal. He went on to study in the Shipbuilding Department of the St. Petersburg Polytechnic Institute, from where he graduated in 1911. He joined the Navy and remained true to the Navy throughout his life, being awarded the Order of the Holy Stanislaw, 3rd class, in 1915, promoted to staff captain of the Corps of Shipbuilding Engineers in 1916, and serving in the great shipbuilding yards of St. Petersburg from 1911 to 1929. Papkovich taught at the Polytechnic Institute from 1916 to 1930 and in 1925 was appointed professor of shipbuilding mechanics. From then until 1939 he worked for the Leningrad Shipbuilding Institute, an offshoot of the Polytechnic Institute. From 1920 onwards he also taught at the Naval Academy and in 1934 was appointed to the chair of shipbuilding mechanics. The end of his career saw him working in the Shipbuilding Research Institute from 1929 to 1939. Papkovich succeeded in specifying general solutions for the homogeneous Lamé-Navier displacement differential equations for the static case as early as 1932. Neuber specified solutions independently in 1934 (three-function arrangement according to Papkovich-Neuber).

Papkovich's awards and honours: Corresponding member of the Russian Academy of Sciences (1933),

doctorate (1935) (without oral assessment), promotion to engineering rear admiral (1940), Order of Lenin (1943 and 1946), Worthy Scientist & Engineer of the Russian Federation (1944), Stalin Prize, 1st class (1946). Papkovich's main contributions to structural analysis: Solution générale des équations différentielles fondamentales d'élasticité, exprimée par trois fonctions harmoniques [1932/1]; Expressions générales des composantes des tensions, ne renfermant comme fonctions arbitraires que des fonctions harmonique [1932/2]; Teoriya uprugosti (elastic theory) [1939]; Stroitel'naya mekhanika korablya (shipbuilding mechanics) [1941 – 47]; Trudy po stroitel'noi mekhanike (works on structural mechanics) [1962 – 63]