

Huber's Yield Criterion and Strength Hypothesis Centennial



M.T. HUBER, professor and the head of newly established Chair of Technological Mechanics, at Lwów Polytechnic (a photograph, taken from monthly „Nasz Kraj” nr 18).

The paper in which Maksymilian Tytus Huber formulated his known yield criterion and strength hypothesis appeared in print precisely one century ago and was published, unfortunately only in Polish. It was a new idea, since for the first time it was not only assumed but also published that the measure of the material effort might depend on the spatial state of stresses, not on a single component of stress tensor. With time, and the results of new experiments, Huber's idea became popular abroad, particularly after citations by A. and L. Föppl in their known monographs. Nevertheless, so far, the original paper of Huber has not been put into any congress language yet. We think that the anniversary makes a good occasion to eliminate this oversight. We do it in this issue of Archives. As a matter of fact in that year (i.e. 1904) M.T. Huber published also two valuable papers, namely his doctoral thesis (*Annalen der Physik*, vol. 4), an important contribution to Hertz's contact problems, and on "*Fundamentals of Strength Theories*" (Warsaw, *Prace Mat.– Fiz.* vol. XV). In 1924 in Delft, during the First International Congress of Applied Mechanics, Huber got acquainted with R. von Mises and H. Hencky and at last was able to discuss the assumptions of the strength theories. After eighty years the Congress of IUTAM is being organized in Warsaw.

Professor Huber was involved in theoretical problems of aviation and first displays of aeroplanes in Lwów. He had developed, in a number of research papers and two monographs, the theory of elastic, orthotropic plates, suitable for engineering applications. He had written monographs in theory of elasticity, general mechanics and technological “stereomechanics”, and he put into Polish the books (by A. Einstein “*On Special and General Theory of Relativity*”, and S. Timoshenko “*Strength of Materials*”).

In 1949 Professor M.T. Huber was a founder of the AMS (i.e. our Archives of Mechanics), at the Department of Structural Mechanics of Gdańsk Polytechnic. Huber’s paper was opening the first issue of our journal.

Zbigniew S. Olesiak
and
the Editorial Committee
