

## LETTER TO THE EDITOR

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ON 24 April 1970, a public discussion of the theory of cracks in brittle bodies was organized at the Mechanical-mathematical Department of the Moscow State University. During the course of the discussions, different points of view were expressed concerning the subject and concerning the premises defended in my article on the physical principles of the theory (Usp. Fiz. Nauk 100, 329 (1970) [Sov. Phys.-Usp. 13, 129 (1970)]). Some participants refuted these premises, others supported and developed them. The objections expressed did not change my views on the gist of the matter, as expounded in the article.

I consider it my duty to answer the remarks made by Prof. V. V. Panasyuk, who stated that my paper does not reflect sufficiently well the work done by Ukrainian scientists on cracks. I regret the fact that, while mentioning the first 1959 paper by M. Ya. Leonov and V. V. Panasyuk as having priority, I did not refer to subsequent papers and to the monograph of V. V.

Panasyuk "Limiting Equilibrium of Brittle Bodies with Cracks" (published by Naukova Dumka, Kiev, 1968). This monograph contains a correct and objective exposition of the principles of the theory, and also extensive material on experiments and on the solution of concrete problems. Using in my article, for the purposes of illustration, a number of numerical data, I presented, in particular, the values of the surface tension of glass,  $\gamma = 2.1 \times 10^3 \text{ erg/cm}^2$  and  $\gamma_{\text{eff}} = 7.5 \times 10^5 \text{ erg/cm}^2$  for U-8 steel, and, with annoying carelessness, did not refer to the source. As during the course of the discussion, I hereby beg V. V. Panasyuk's forgiveness.

In conclusion I wish to note that my article was devoted to a particular problem. It was not a review of the entire theory of cracks, and therefore contains a very limited bibliography.

Translated by J. G. Adashko