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**THE PROBLEM OF A NORMAL IMPACT OF QUARTER
OF AN ELASTIC SPACE ON A FIXED RIGID BARRIER**

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Homogenous elastic medium bounded by two perpendicular planes XOZ and YOZ is infinite in the direction of an axis Z. Suppose this medium moves progressively with the velocity V^0 in parallel to the bounded plane XOZ. When $t=0$ it impacts the plane rigid fixed barrier $X=0$. We investigate the plane wave movement which occurs in such case.

This problem has been solved by V. G. Cheban. Before him M.A. Malkov had solved an analogous problem of an elastic longitudinal impact of two plane beams. V. G. Cheban and E. N. Ivashchenko also solved an analogous problem later. All above mentioned problems in their automodel formulation have been solved by the method of functionally invariant solutions of V. I. Smirnov and S. L. Sobolev.

In the present work the same problem in its automodel as well as non-automodel formulation is solved by the method of integral transformation.