

How can we replace Newton's laws?

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There are three basic laws of the mechanics, which Newton proposed. This is how they are presented in the transfer “of beginnings” edited by I. S. Polaka.

Law I

Any body continues to be retained in its state of rest or uniform and rectilinear motion, until and since it is forced by the applied forces to change this state.

Law II

The momentum proportional to the applied motive power occurs in the direction of that straight line, on which this force acts.

Law III

To action always is equal and opposite opposition, otherwise - two-body interaction to each other between themselves they are equal and directed to the opposite sides.

In the description of the third law itself Newton gives the example, when horse pulls stone. In this case he indicates that the motion of horse forward resists of the stretched rope. The rope tension impels the motion of stone forward in its turn. Consequently, Newton assumes the propagation of this law, also, to the moving objects. Moreover, it examining the collision of two elastic bodies he indicates that in this case not the equal change occurs speeds, and a change in their momentum. Consequently, by this assertion it introduces the law of momentum conservation.

As indicates itself Newton, the third law is extended also to the motion with the friction, when frictional force is balanced by thrusts. Let us point out that thrusts can be the inertial force. In this case the body will move with the retarding.

Of the aforesaid it above follows that to the content all of three Newton's law corresponds formulation “**Opposition equal to action**”. For this formulation falls under its first law, since. the action of the forces, equal to zero, the same reciprocal forces causes and does not lead to a change of state of body.

Therefore law “**Opposition is equal to action**” can be named the universal mechanical law, for which it is possible to replace all three Newton's law .