great deal more, because of the great amount of energy that would be lost in the form of friction in the machinery employed for the purpose. In discussing this question, however, we are assuming that all of the energy can be employed in the actual work of raising the water.

Another form of energy of position is seen in the bending of a bow. The bending of a bow has required a certain amount of energy, which, when released, is imparted to the arrow, which now represents as moving energy what the bent bow did as energy of position. If there were no attraction of gravitation, and if the arrow were flying through a vacuum instead of through the air, the arrow would move on forever with the velocity it had when it left the bow. In and of itself it has no ability to change its velocity or direction. The energy imparted to it would continue with it as moving energy. But the moment it is resisted, as it is by gravitation and by passing through a resisting medium, such as the air, the energy of mechanical motion is gradually changed into that of molecular motion, until the whole of the former has passed into the latter, when the arrow comes to rest; but the measure of energy remains the same.

Another instance of energy of position is found in the spherules of moisture that are drawn from the surface of a body of water