

[TITLE OF DOCUMENT] ABSTRACT

Provided is a failure detection sensor which, when attached to structural members of various structures such as buildings can easily detect the risk of the failure of the structural members, and thus the structure, before such failure occurs and has a simple structure, which leads to realization at a low price.

The failure detection sensor comprises: a first member 10 and a second member 20 provided in parallel with the first member 10 such that one end of the second member 20 is fixed to or restricted by the first member 10 and the other end of the second member 20 is not fixed to or restricted by the first member 10, having fracturing characteristics such that the second member 20 fractures during elastic deformation or plastic deformation of the first member 10. The failure detection sensor may have a compression coil spring 40 which applies a tensile force to the other end of the second member 20 on the opposite side of the one end. The first member 10 and the second member 20 are constituted of, for example, a round rod or a square rod and the first member 10 is constituted of, for example, a hollow rod. The second member 20 has a notch 24 which is a stress concentration site between the one end and the other end. The second member 20 is made of brittle materials.