

Gravimeters

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Abstract:-

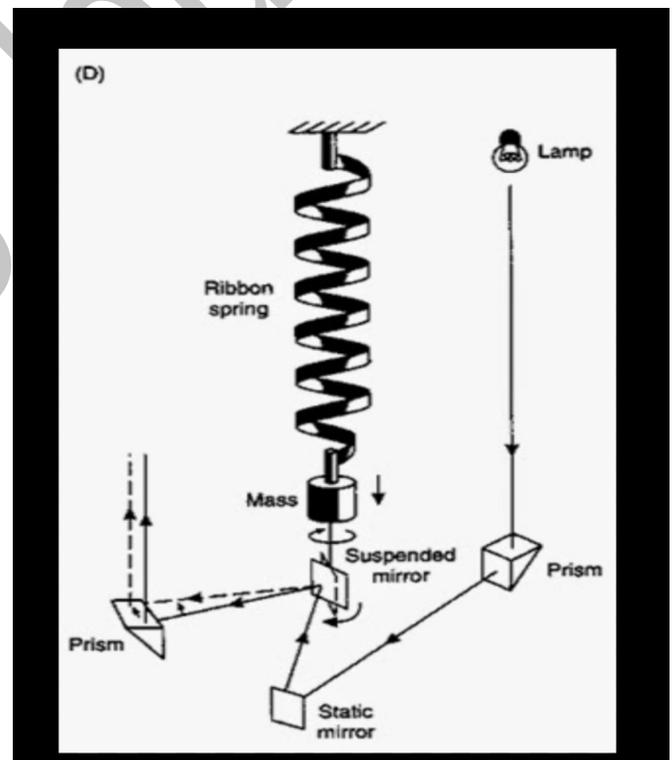
Today's article is about gravimeters. It was invented by Lucien Lacoste who was physicist and meteorologist. But there are subtypes of gravimeters, invented differently by different scientists.



The gravity M is a sensitive instrument which can measure the difference in g values at different places. Various principles have been used in their construction and instruments of various ranges from 5000 mgal to 30 mgal, developed.

Most often require calibration at two stations where g is accurately known. Some varieties can be calibrated by using non forces. Instruments of wider range and naturally less sensitive than those of smaller range.

Gravimeters can be divided into three classes. The simplest of there has a range of 30 mgal and can detect differences of 0.02 Mgal. This machine was invented by Hyot and is called Gulf-hoyt gravimeters.



Gravimeters of highest sensitivity are used for the exploration of minerals particularly oil. The required number of corrections before the values can be

put to use. The density of oil be much less than that of Rock and anomaly in the measured value of g will be noticed when there is a big oil mind within the earth crust below. However the interpretation of the results of a closed survey is a matter of much experience and often requires much additional information. In our measurement of G the error should be less than 0.1 mgal. Images survey for exploration of minerals that an oil is not much effective. This is due to the fact that these mines are of shape and of smaller volume and above all the difference in density is also small. In this cases is really electric magnetic and artificial seismic service are used. Artificial systemic survey the velocity of seismic waves and the reflection and refraction in earth-crust are measured.

Reference:-

Classical mechanics :- prof.
Chowdhary

Image:- National museum of American history

Image2:- Taufiq arifan personal blog