

The Foucault pendulum in the new Parliament building- what it means?

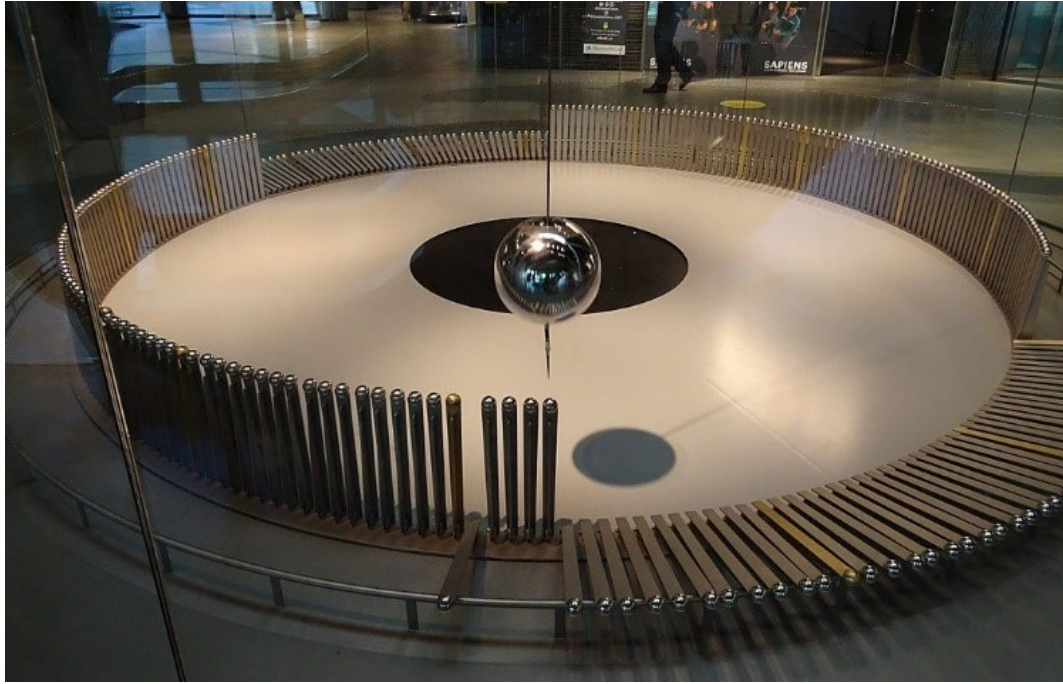
By IASToppers | 2023-05-29 15:50:00



The Foucault pendulum in the new Parliament building- what it means?

A **Foucault pendulum** has been suspended from the 'Constitutional Gallery' area of recently inaugurated new **Parliament building**.

- This Foucault pendulum has been designed and installed by the **National Council of Science Museums (NCSM)**.



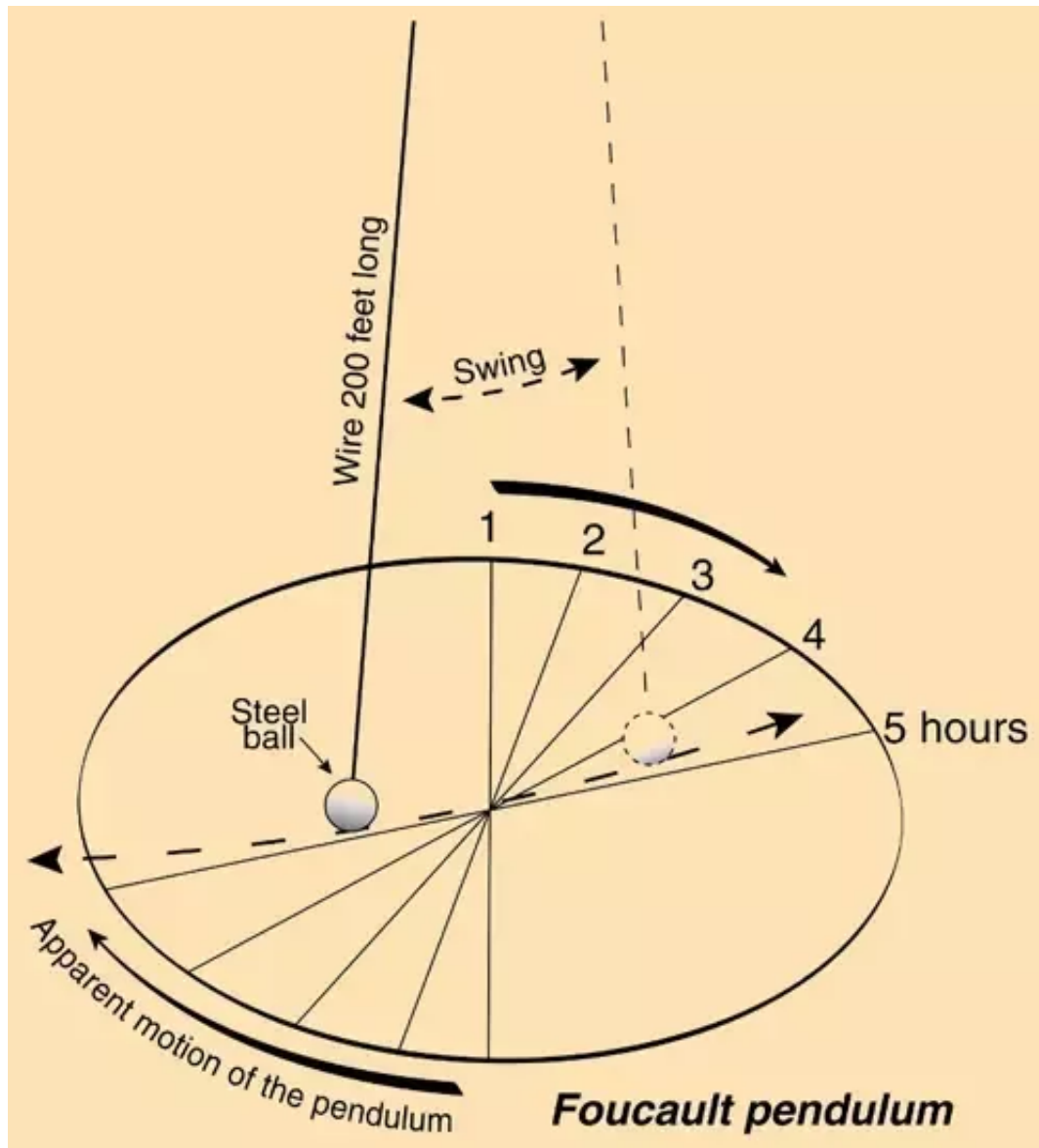
[ref-smithsonian magazine]

About the Foucault pendulum:

- The Foucault pendulum is named after the **Léon Foucault** (1819-1868), the **French** physicist who first devised this apparatus in the **mid-19th century**.
- The Foucault pendulum is a simple device used to illustrate the **earth's rotation**.
- The Foucault pendulum consists of a **heavy bob** suspended at the **end** of a **long wire** from a **fixed point** in the **ceiling**.
- As the pendulum **swings**, the **imaginary surface** across which the **wire** and the **bob swipe** is called the **plane of the swing**.

Rotation of the Foucault pendulum:

- If the **pendulum** is installed at the **North Pole**, the pendulum will be swinging as the **earth** rotates '**below**'.
- When someone stands on the **earth's surface**, he cannot notice the **planet's rotation**, instead to them, the **plane of the swing** will seem to **rotate** by a **full circle** as the earth completes **one rotation**.
- If the pendulum is installed over the **equator**, the plane won't appear to **shift** as it will be **rotating** along with the **earth**.
- On any other **latitude**, the plane will **shift** through **360°** in one **sidereal day** divided by the **sine** of the **latitude** of its location.



[ref- Quora]