JAQUET TACHOMETER (MECHANICAL RPM INDICATOR)

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Introduction:

- A **Jaquet Tachometer** is a precision instrument used to measure **rotational speed (RPM)** of machines, engines, and turbines.
- It is a **mechanical, handheld device** that operates without electrical power.
- Widely used in **industrial applications, railways, and early automotive engineering**.

Historical:

- Developed by **Jaquet, a Swiss company** specializing in speed measurement devices.
- Used extensively in the **early 20th century** for measuring the performance of **steam engines, electric motors, and turbines**.
- Mechanical tachometers like this were critical for monitoring speed before the advent of digital measurement tools.
- The company Jaquet Instruments later evolved into **Jaquet Technology Group**, now part of TE Connectivity.

Specifications :

- **Type**: Ana-log mechanical tachometer.
- **Measurement Range**: Typically **0-8000 RPM**, depending on model.
- **Operation**: Uses a **spring-loaded mechanism and pointer dial** to display speed.
- **Components** : **Main dial with a needle indicator** (shows RPM).
- **Push button for measuring speed**.
- **Interchangeable tips** for attaching to rotating shafts.
- **Protective case with red velvet lining** for safekeeping.

Features:

- **High Accuracy** – Provides **precise RPM readings** for various rotating machinery.
- **Push-Button Measurement** – Simple operation using a **press-and-hold button** for accurate speed detection.
- **Durable Build** – Made with **high-quality metals and precision-engineered parts** for longevity.
- **Versatile Applications** – Used in railways, power plants, automobiles, and industrial machinery.

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Working Principle:

- The tachometer is pressed against a rotating shaft.
- The friction causes the internal mechanism to engage and measure the rotational speed.
- The speed is displayed on the **analog dial** in **RPM (Revolutions Per Minute)**.
- After measurement, a built-in **stop mechanism** holds the reading for easy observation.

Applications:

- **Railway and Locomotives**: Checking the speed of steam and diesel engines.
- **Industrial Machinery**: Monitoring motor and turbine speeds in factories.
- **Automotive Testing**: Used by mechanics for **engine tuning and diagnostics**.
- **Power Plants**: Checking **turbine RPM** for efficiency and safety.

Links:

- https://purehistory.org/george-westinghouse-2/
- https://www.gracesguide.co.uk/British_Westinghouse