



Dial for New Repairman's Test Set

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Switching Development

DESIGNED for small size and weight, a new dial for the new repairman's test set is completely enclosed within the die-cast cover, base and finger wheel. The numerals, one through nine to zero, are cast in the cover adjacent to the periphery of the finger wheel. Because of space limitations, only the first letter of each of the groups, usually associated with the numerals 2 to 9, is cast on the finger wheel.

The finger wheel has ten conical projections $\frac{7}{64}$ inch high and ten adjacent depressions $\frac{1}{16}$ inch deep instead of the conventional finger holes. The dial may be operated either by pulling one of these projections with the finger or by placing the tip of a pencil or small tool in one of the depressions. A lug, cast integrally with the cover, serves as a finger stop to limit the rotation of the finger wheel during windup.

The main shaft of the dial, which is staked to the die-cast base, is stationary and has shoulders to support the finger wheel, main gear-pulsing wheel, and the governor assembly.

The governor is driven from the main gear through an intermediate gear and pinion, and the spiral motor spring of flat clock-spring steel is mounted in a cavity on the underside of the finger wheel.

When the finger wheel is pulled in a clockwise direction during windup, the pulsing mechanism remains stationary; on release, the mechanism is driven by a pawl on the finger wheel which engages a tooth on the pulsing wheel. The centrifugal governor has brass weights staked to springs which bear directly on the friction surface. These springs are accessible for adjustment by sliding a cover which is pivoted to the case.

The pulsing springs are actuated directly from the teeth of the pulsing wheel. Off-normal contact springs used on the standard station dial to open the receiver circuit and shunt the transmitter during pulsing are not provided and single instead of twin contacts are used on the pulsing springs. Elimination of these features simplifies the design and saves space which are prime considerations.