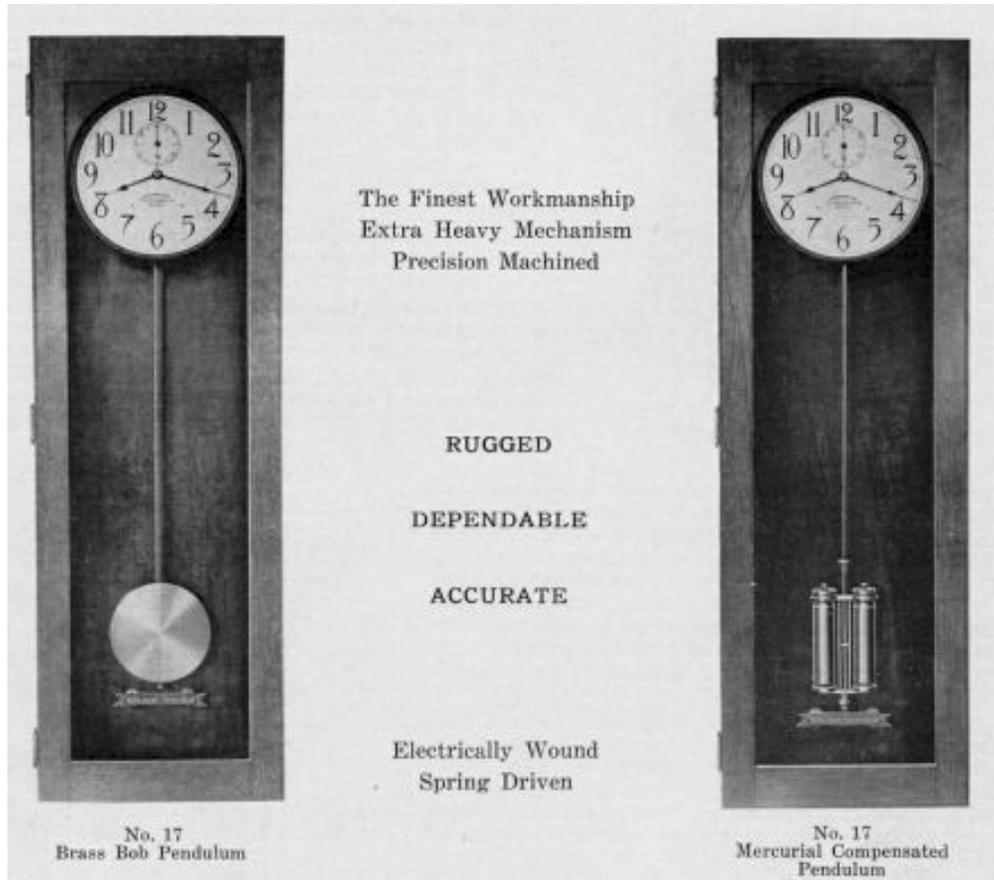


[The following is a reproduction of an IBM product data sheet published around 1932 on the No. 17 electric self-winding master clock.]

Data Sheet 1-4B

**INTERNATIONAL  
ELECTRIC SELF WINDING MASTER CLOCK  
No. 17**



**SALIENT FEATURES**

**Escapement**—Graham dead beat type, 60 beat with micrometer adjustment to balance beats.

**Gear Train**—Precision cut from heavy, hard brass, burnished and gold plated to prevent oxidation and to eliminate lacquer. Pinions are of steel, machine cut and burnished.

**Reserve Power**—The driving spring carries enough reserve power to operate the clock for several hours with all power shut off and it will fully rewind itself when the power is restored.

**Reverse Wind** —A novel winding mechanism insures the driving spring always being wound to the same tension and protects it against overwinding. This uniform winding of the driving spring insures good time keeping.

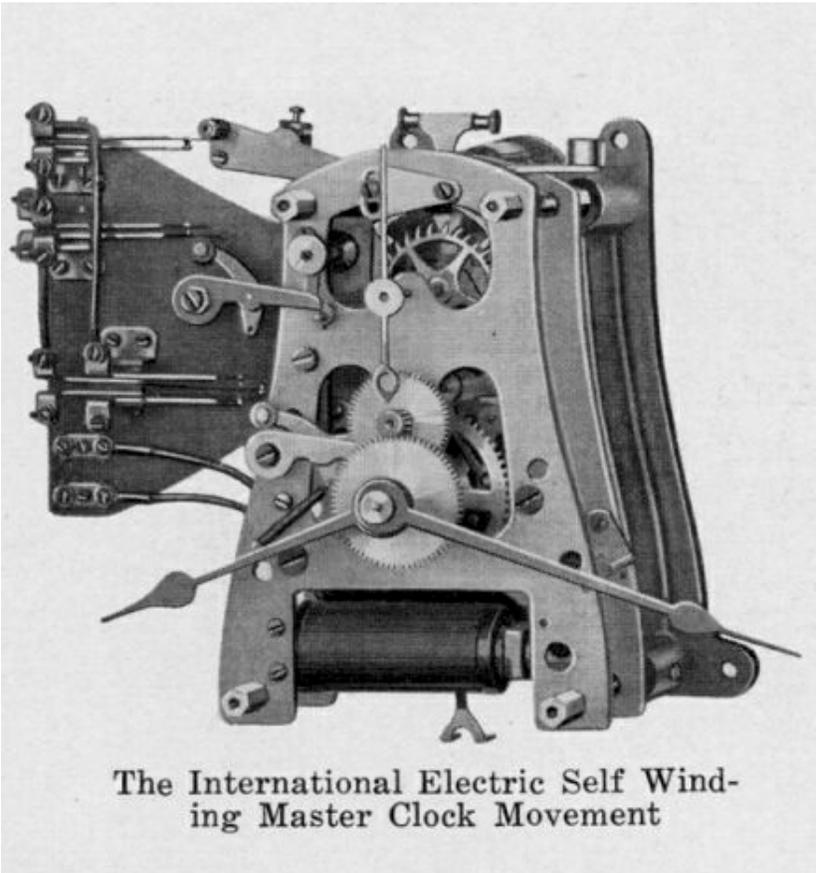
All International Equipment is approved by the Underwriters Laboratories

MANUFACTURED BY THE

INTERNATIONAL TIME RECORDING CO.

DIVISION OF

INTERNATIONAL BUSINESS MACHINES CORPORATION  
270 BROADWAY, NEW YORK, N. Y.



The International Electric Self Winding Master Clock Movement

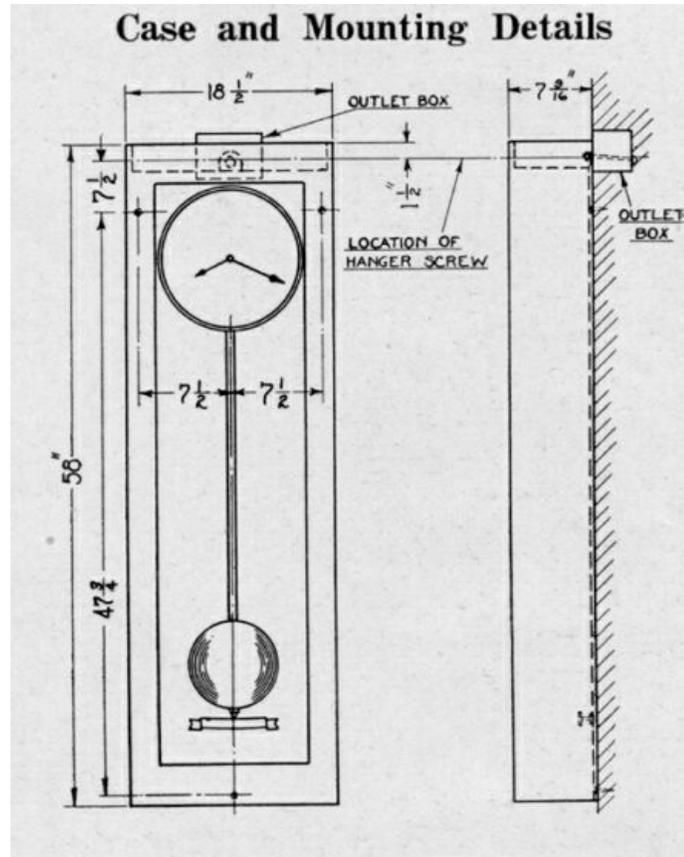
**The International Electric Self Winding Master Clock Movement** incorporates the latest International electrical contact arrangement with a heavily built clock movement of the finest workmanship. The movement plates are of 1/8 inch thick hard brass with all bearings line-reamed in position to insure perfect alignment. The bearings are also jewel-cut and burnished to take care of end thrust in the arbors.

The gears are precision machined from heavy, hard brass and are gold plated to prevent oxidation and to eliminate lacquer. The pinions are machine cut from steel and are polished to insure smooth running with the gears.

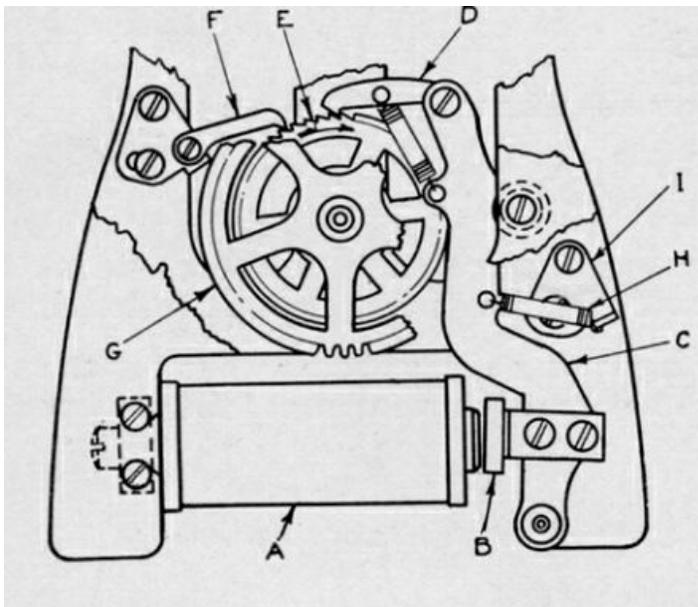
Old style “contacts” are entirely dispensed with and their place is taken by heavy, mechanically operated circuit closers operated independent of the escape train so as not to interfere with the time-keeping qualities of the clock. Contactor surfaces are large and of hammered, copper-free silver, which is the best known material for this purpose.

**Cases For These Clocks** are of the finest cabinet work and are regularly carried in stock in selected quarter sawn white oak and distinctively grained gumwood. Cases can be furnished in other woods at a small increase in price. The backs are made of 5/8 inch 5-ply veneer and the doors are double locked to make them dust tight. Twelve inch diameter, satin finish, white enamel Arabic dials are standard, but Roman dials or silvered dials with etched or raised bronze numerals can be furnished at a small extra cost.

These clocks equipped with brass bob pendulum give very fine time ratings, but the full value of the heavy construction and fine workmanship in these clocks can be obtained only when they are equipped with our special steel rod mercurial compensating pendulum. Clocks so equipped are guaranteed to rate within ten seconds per month of true time.



### Winding Mechanism



- A—Electromagnet.
- B—Electromagnet armature attracted to magnet at each impulse.
- C—Lever attached to armature—advances feed pawl (D).
- D—Feed pawl moves ratchet (E) one tooth each impulse.
- E—Winding ratchet.
- F—Detent pawl—holds ratchet (E) from turning backwards.
- G—Main driving gear.
- H—Winding spring, the tension of which balances thru the winding ratchet (E) with the tension of the main driving spring attached to winding ratchet (E) and main driving gear (G).
- I—Adjustment for tension of winding spring (H).