

Assessing Pocket Watch Problems

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NAWCC San Jacinto Chapter 139

Content

- Giving it the Once Over
- Winding and Setting
- Getting Inside
- Under the Hood
- It Runs, but...!

Assessment, not Valuation

- Today's presentation covers assessing condition and common problems with pocket watches.
- It does not cover valuation or pricing of pocket watches.
- Refer to the presentation "Determining Pocket Watch Quality" by Mr Artzner in the Education Section of our Chapter website.

Tool Time

- Case Opening Tool
- Loupe
- Case Knife
- Toothpicks
- Tweezers
- Assorted Keys



Giving it the Once Over

- Open Face
 - Sidewinder



- Hunting Case
 - Hinges
 - Cover



Giving it the Once Over

- Case Material
 - Nickel Alloy
 - Silver
 - Gold-Filled (YGF)
 - Solid Gold
- Brassing
- Dents



Giving it the Once Over

- Bow
- Crown
- Stem/Sleeve



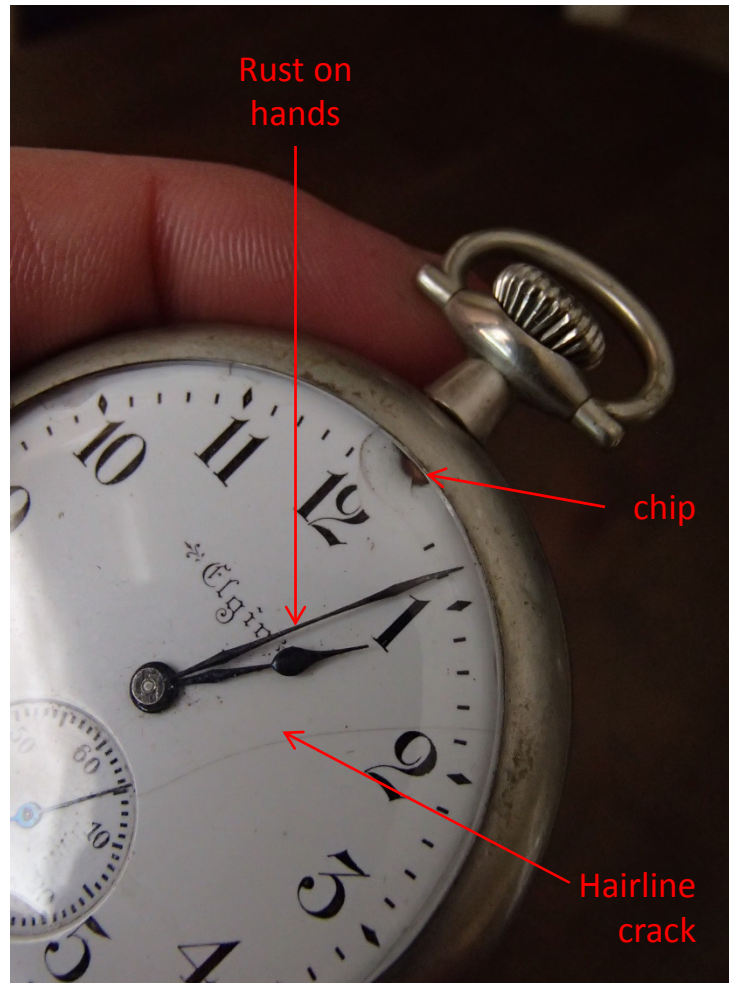
Giving it the Once Over



- Bezel
- Crystal
 - Condition
 - Material
 - Yellowing

Giving it the Once Over

- Hands
 - Missing
 - Mismatched
 - Condition
- Face
 - Metal
 - Enamel
 - Cracks / Chips

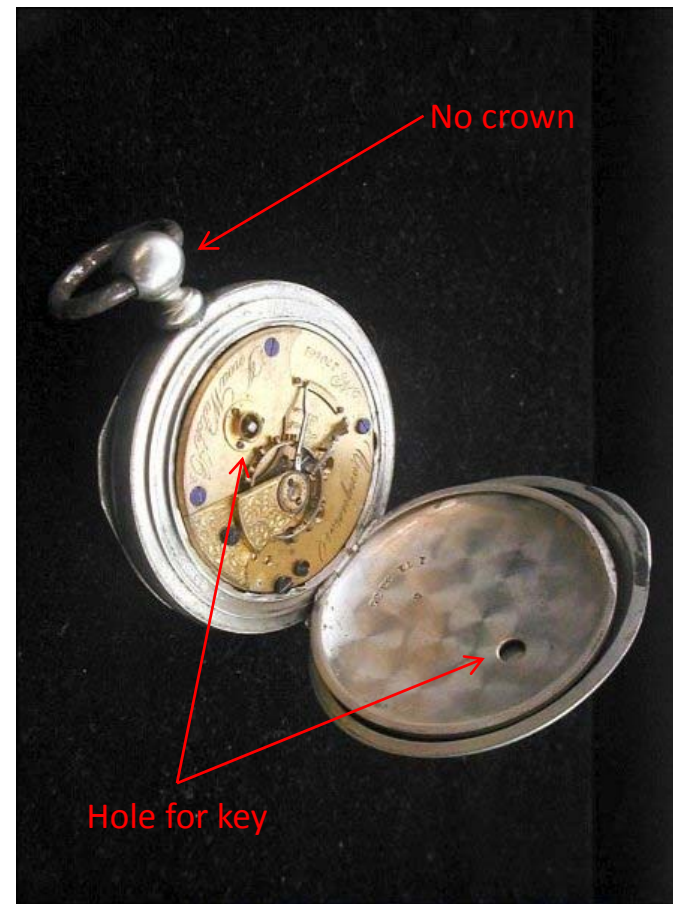


Winding

- Pendent wind



- Key wind



Winding

- The Overwound Misnomer
 - When a manual watch is wound completely, you will no longer be able to rotate the crown. That is fully wound, not overwound.
 - If the watch is not running when fully wound, it is indicative of other issues.

Winding

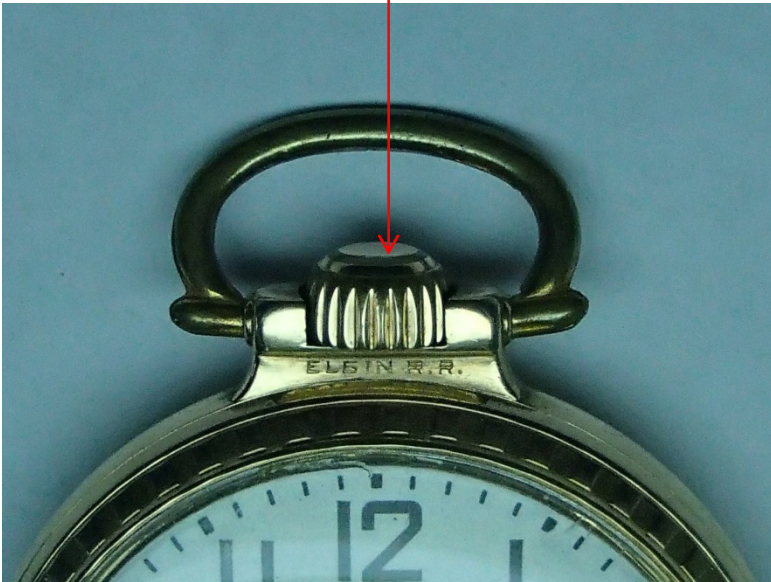
- Broken Mainspring
 - Very common.
 - Slight resistance when winding and the watch quietly "clicks" every so often, seemingly releasing the slight tension.
 - Parts still available for common models.



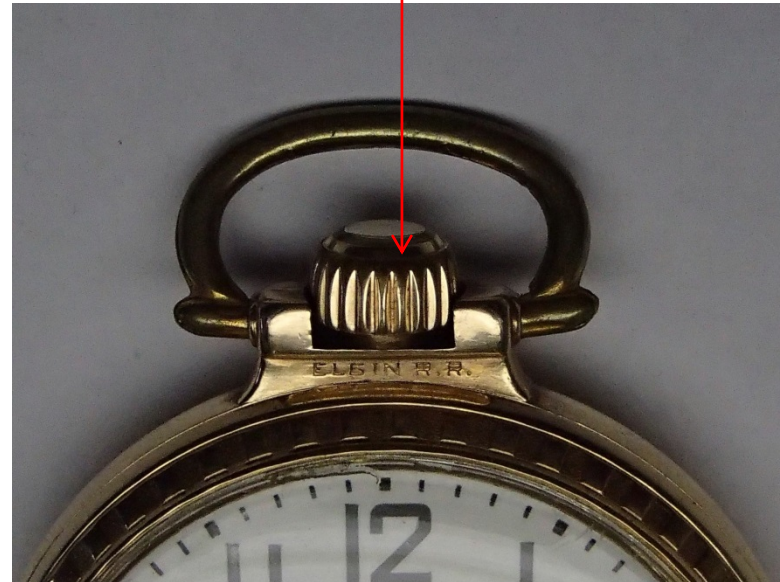
Setting

- Pendant-Set

Crown pushed "in"
to wind mainspring



Crown pulled "out"
to set hands



Setting

- Pendant-Set problems
 - Won't "click" from one position to the other
 - Stem pulls out completely
 - May indicate an issue with damage to the sleeve
 - Watch does not wind, or hands will not set
 - Indicates sleeve may need to be adjusted (with a sleeve wrench)



Setting

- Key-Set
 - From front
 - From back

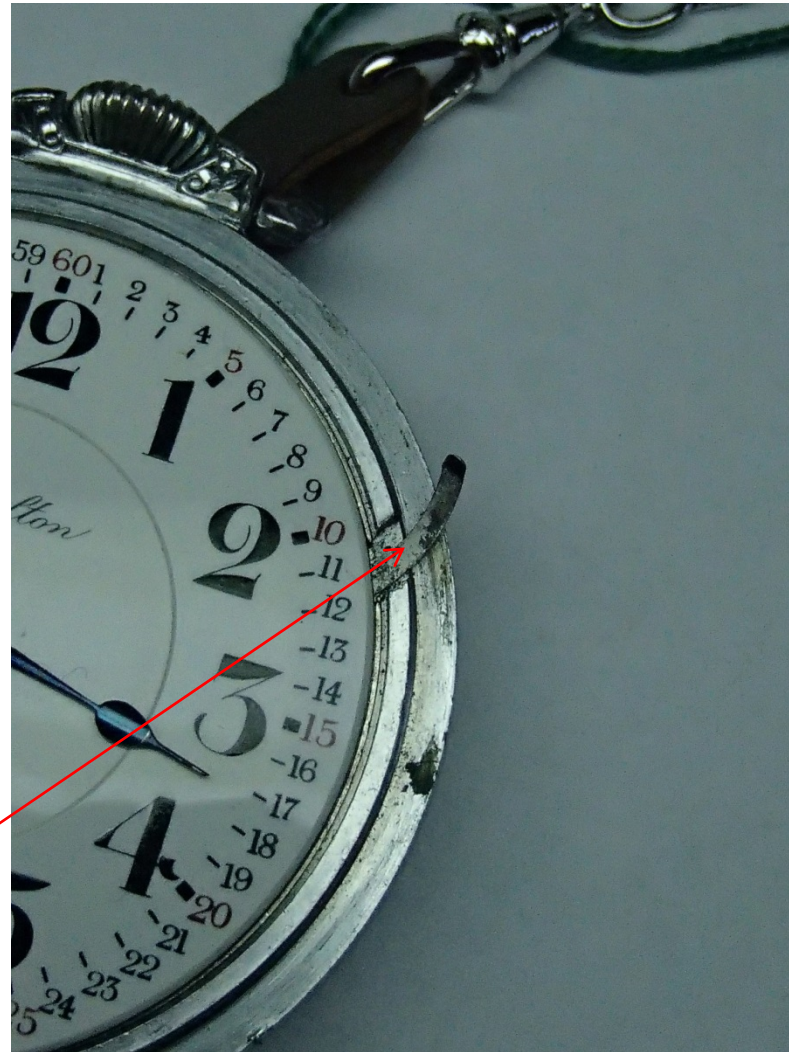
Hands are set with
key on square
centre arbor



Setting

- Lever-Set
 - Railroad watches

Remove bezel, pull lever out and turn crown to set hands



Setting

- Pin-Set
 - More common on European watches

Press and hold in the 'pin' while turning the crown to set



Getting Inside

- Screw-off back
 - No hinge on the back
 - No visible "notch" in the seam for a case-knife.
 - Visible seam around rim of case back



Getting Inside

- Snap-off back
 - No hinge on the back
 - Visible seam with notch for case-knife.



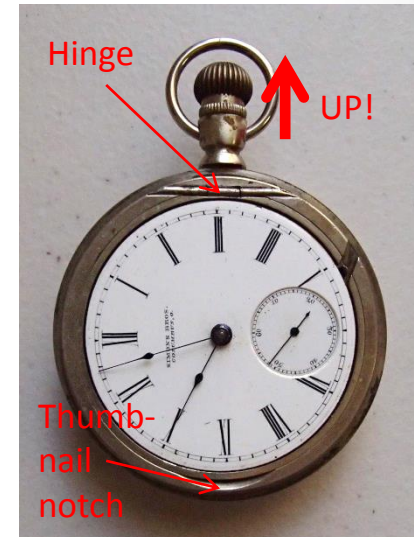
Getting Inside

- Hinged-back
 - Hinge visible on back and/or front
 - Look for the notch for thumbnail or case-knife



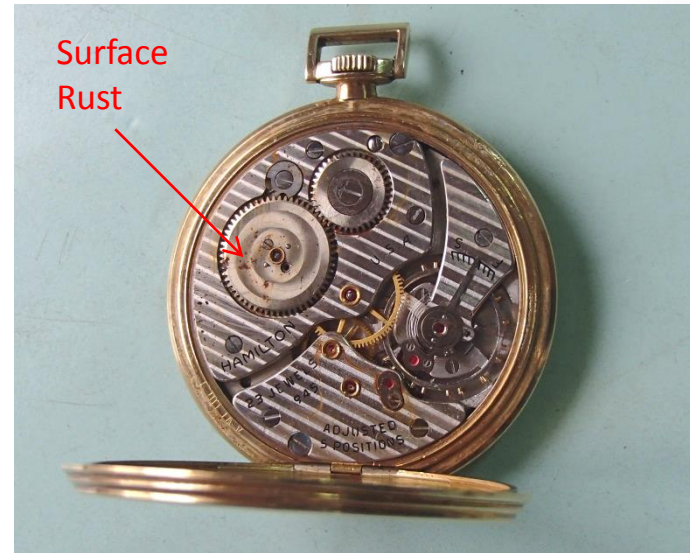
Getting Inside

- Swing-out
 - No seams around the back cover i.e. back cover and body all one piece
 - Remove front bezel and look for swing-out movement
 - ALWAYS pull out winding stem before lifting the movement out of the case.



Under the Hood

- Rust
 - Superficial
 - Terminal
- Generally Dirty
 - Very common
 - Oil dried up
 - “WD40’d”



Under the Hood

- Missing/Wrong Parts
 - Case Screws
 - Other Screws



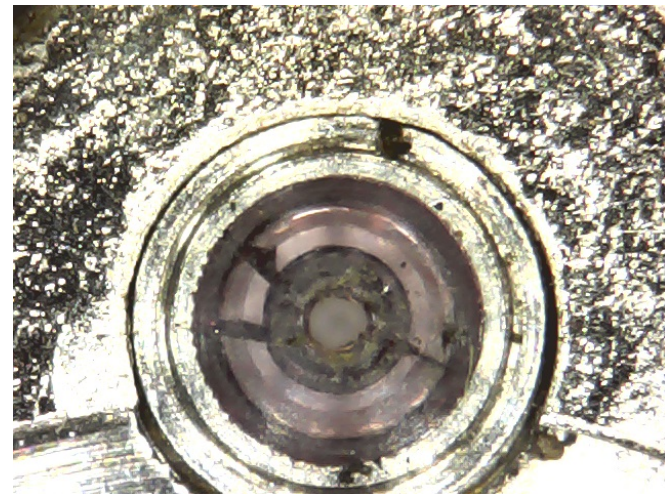
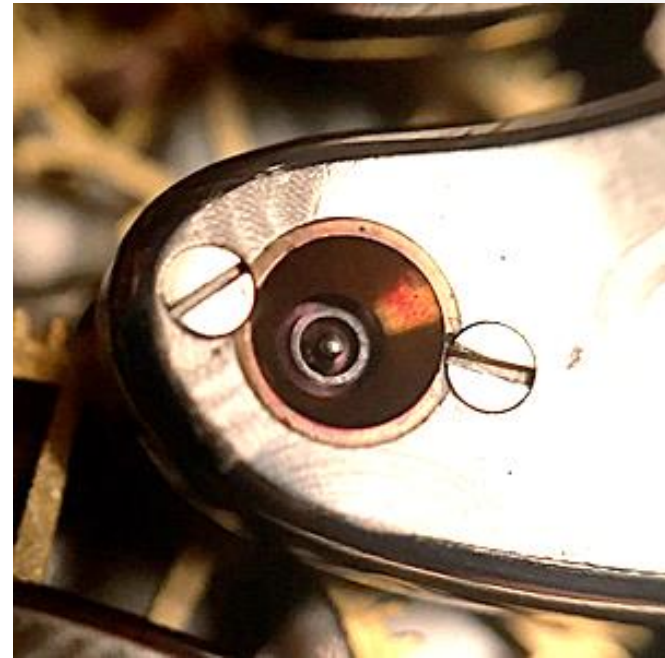
Under the Hood

- Missing/Wrong Parts
 - Balance
 - Regulator
 - Hairspring
 - Mainspring barrel
 - Jewels



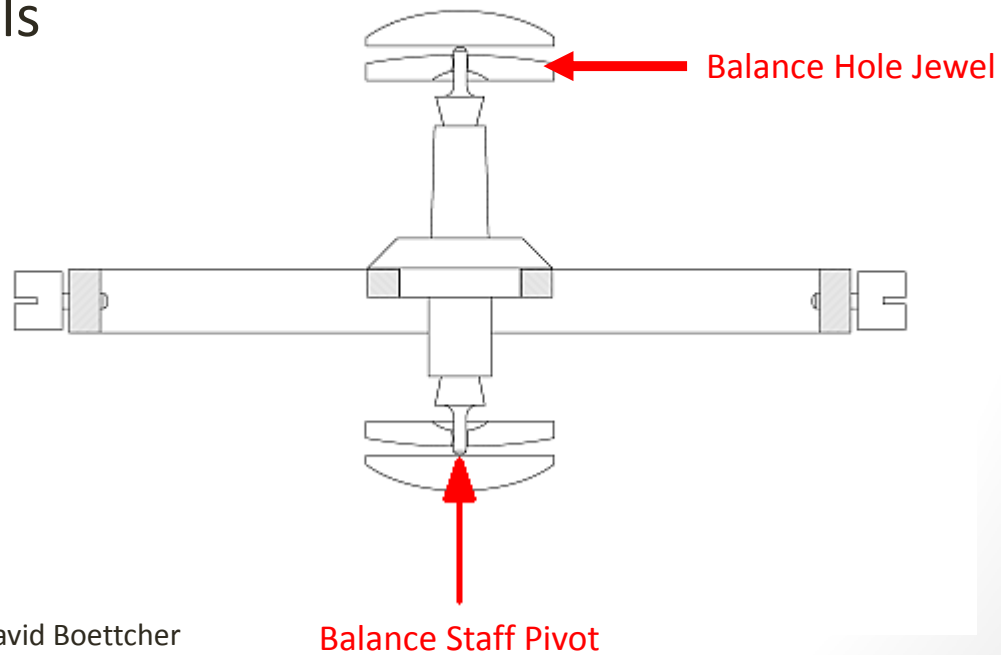
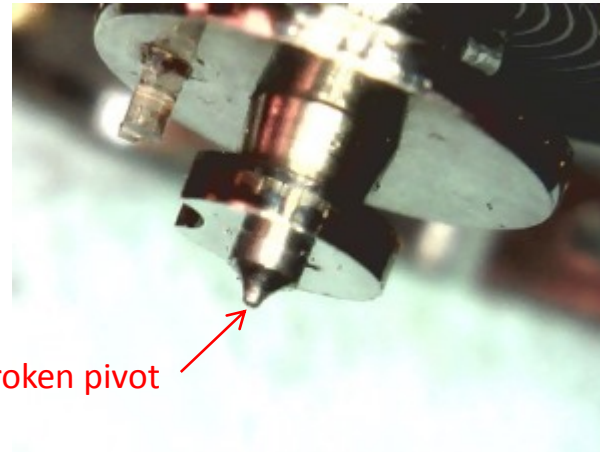
Under the Hood

- Pivot Holes
 - Oval pivot hole
 - Cracked jewels
 - Screw set
 - Friction fit



Under the Hood

- Escapement Problems
 - Balance Wobbles
 - Broken Balance Staff (very common)
 - Broken Jewels



Under the Hood

- Escapement Problems
 - No pallet movement
 - Missing/Broken Roller Table Jewel

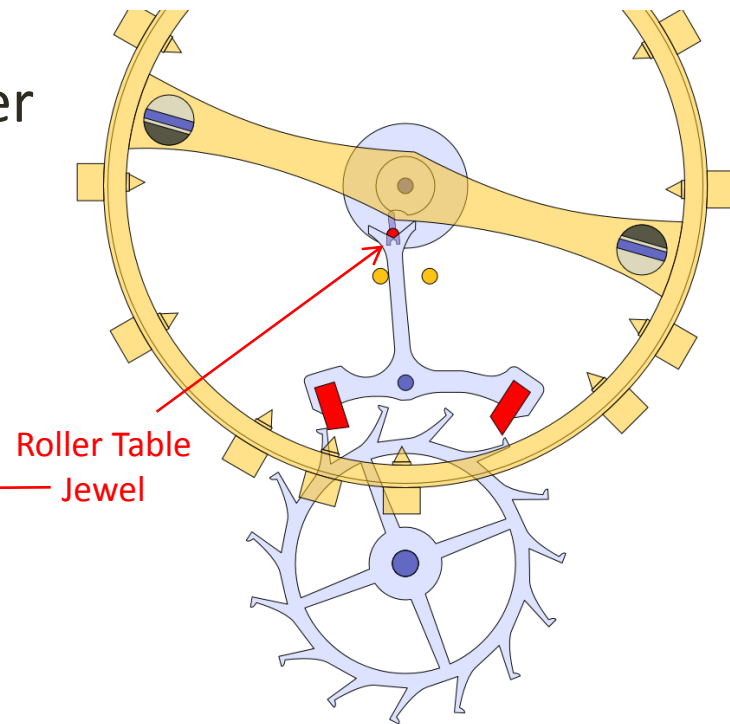
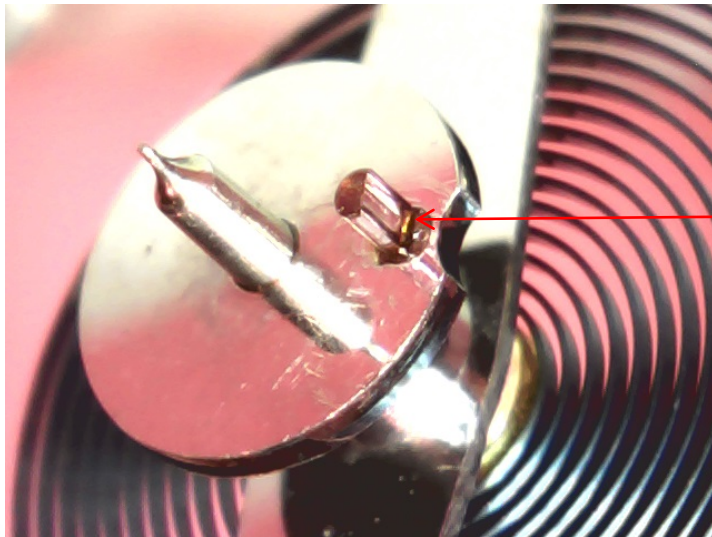


Image from http://en.wikipedia.org/wiki/Lever_escapement

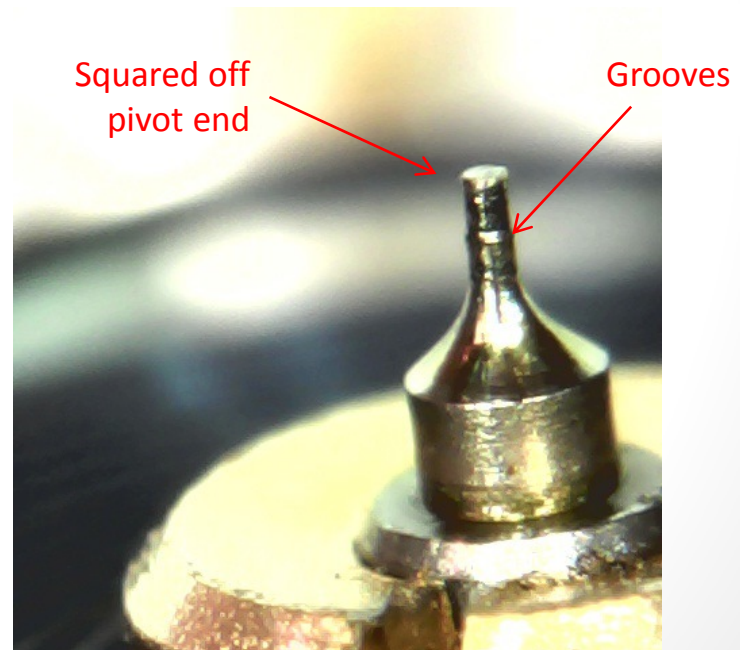
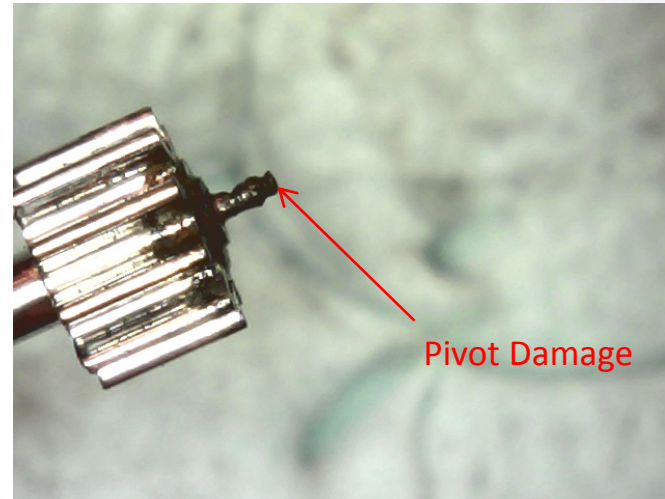
It Runs, but...!

- Poor Amplitude
 - Set Mainspring



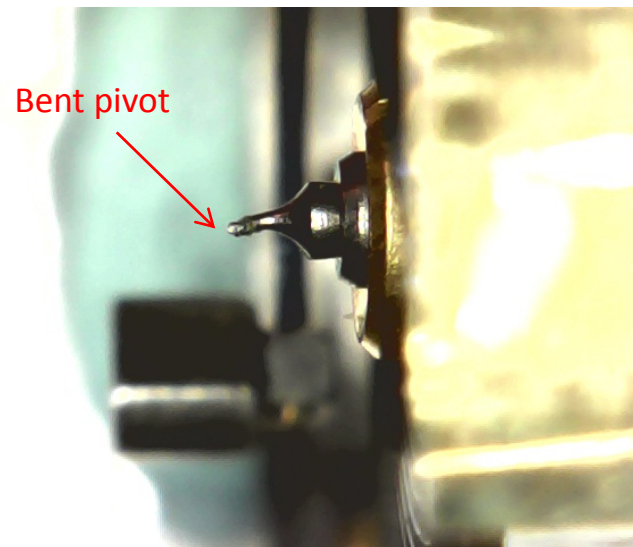
It Runs, but...!

- Poor Amplitude
 - Power train problem
 - Rust?
 - Pivot Issue
 - Pivot condition
 - Dirty / old oil



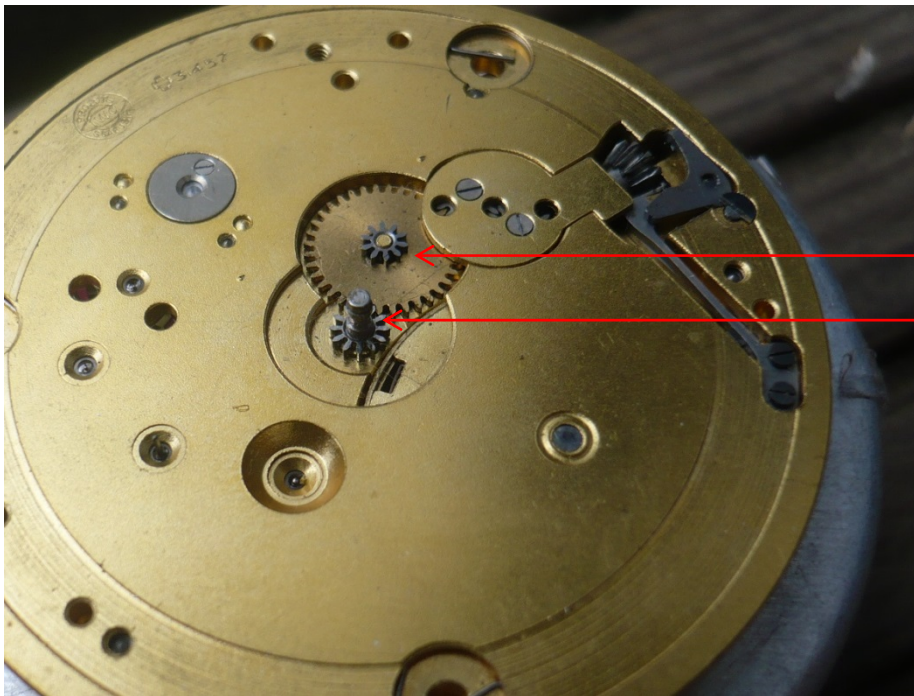
It Runs, but...!

- Stops in various positions
 - Pivot condition/damage
 - Balance Hole Jewel damage



It Runs, but...!

- Hands do not move (or sluggish)
 - Loose Cannon Pinion
 - Minute Wheel problem

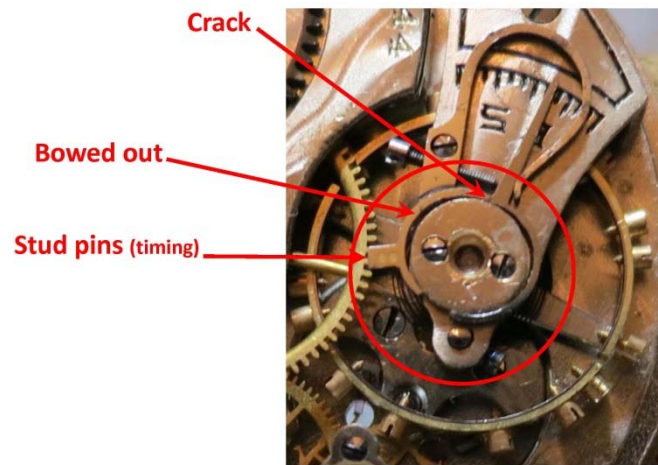


Minute Wheel

Cannon Pinion

It Runs, but...!

- Poor Timekeeping
 - Surface rust on Hairspring
 - Regulator pins adjustment
 - Hairspring damage
 - Magnetism



Conclusion

- Be methodical - have a system
- Recognize;
 - Easy/low cost to fix
 - Complex/high cost to fix
- The most common issues are;
 - Dirty and/or Old Oil
 - Broken or Set Mainspring
 - Broken Balance