Subject: The caliber 411
Posted by JackW on Fri, 31 May 2013 18:40:40 GMT
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This is the caliber 411, a 15 jewel movement that is 10.5 ligne or 23.7mm in diameter. Almost all parts will interchange with others in the 405-series. The only difference between the 411 and the 421 is the size; other wise it is fully interchangeable. These movements are always marked with the caliber number in the space next to the balance wheel and the pivot jewel for the escape wheel.

Subject: Re: The caliber 411
Posted by timeliz on Sat, 01 Jun 2013 20:20:23 GMT
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I have a 411C coming. What is the difference between the two?

Subject: Re: The caliber 411
Posted by JackW on Sat, 01 Jun 2013 20:25:44 GMT
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Oh! Good question. I think it two things 1) the shape of the bridges are different with the edges tapered. I think there is a difference in the canon pinion, center wheel and hour wheel; or so say the 1945 parts catalog.

When you get yours, can you photograph it and post it?

Subject: Re: The caliber 411
Posted by timeliz on Sat, 01 Jun 2013 20:33:27 GMT
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Absolutely.

Subject: Re: The caliber 411
Posted by Gary on Mon, 06 Jul 2015 03:57:45 GMT
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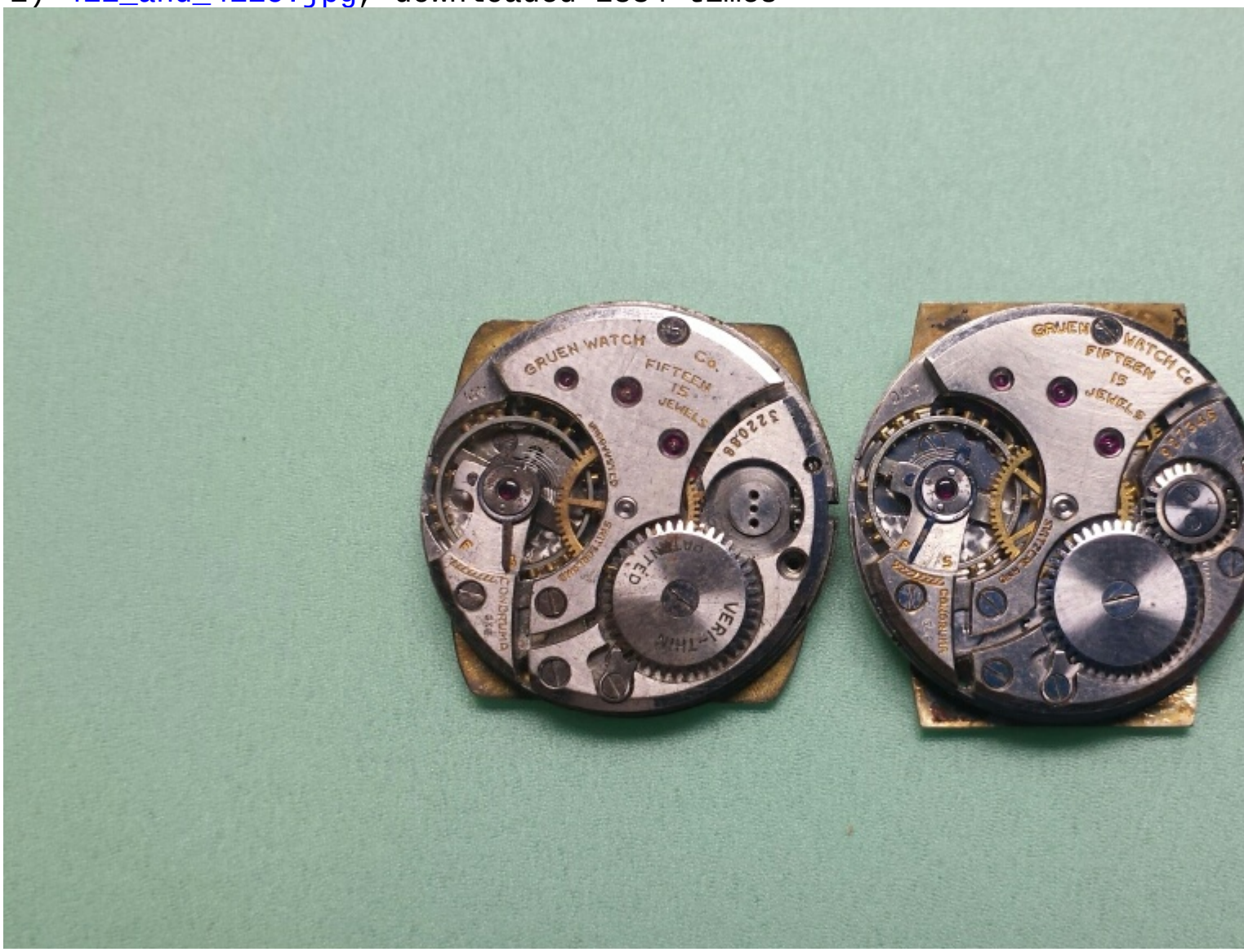
Got out my box of part movements and ran across both of them. 411 (left), 411c (right).

Agree with Jack on both points. Both have tapered bridges but the 411 is wider. The center

bushings are a little different. The stamping is the same but oriented differently on the train bridge.

File Attachments

1) 411_and_411c.jpg, downloaded 2834 times



Subject: Re: The caliber 411
Posted by MikeTheWatchGuy on Mon, 06 Jul 2015 18:53:22 GMT
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The taper is on the pillar plate, on the dial side rather than the bridges.

These photos are of a 411C and a 420. It's a rather dramatic effect to the pillar plate to get that "C" added to the movement.

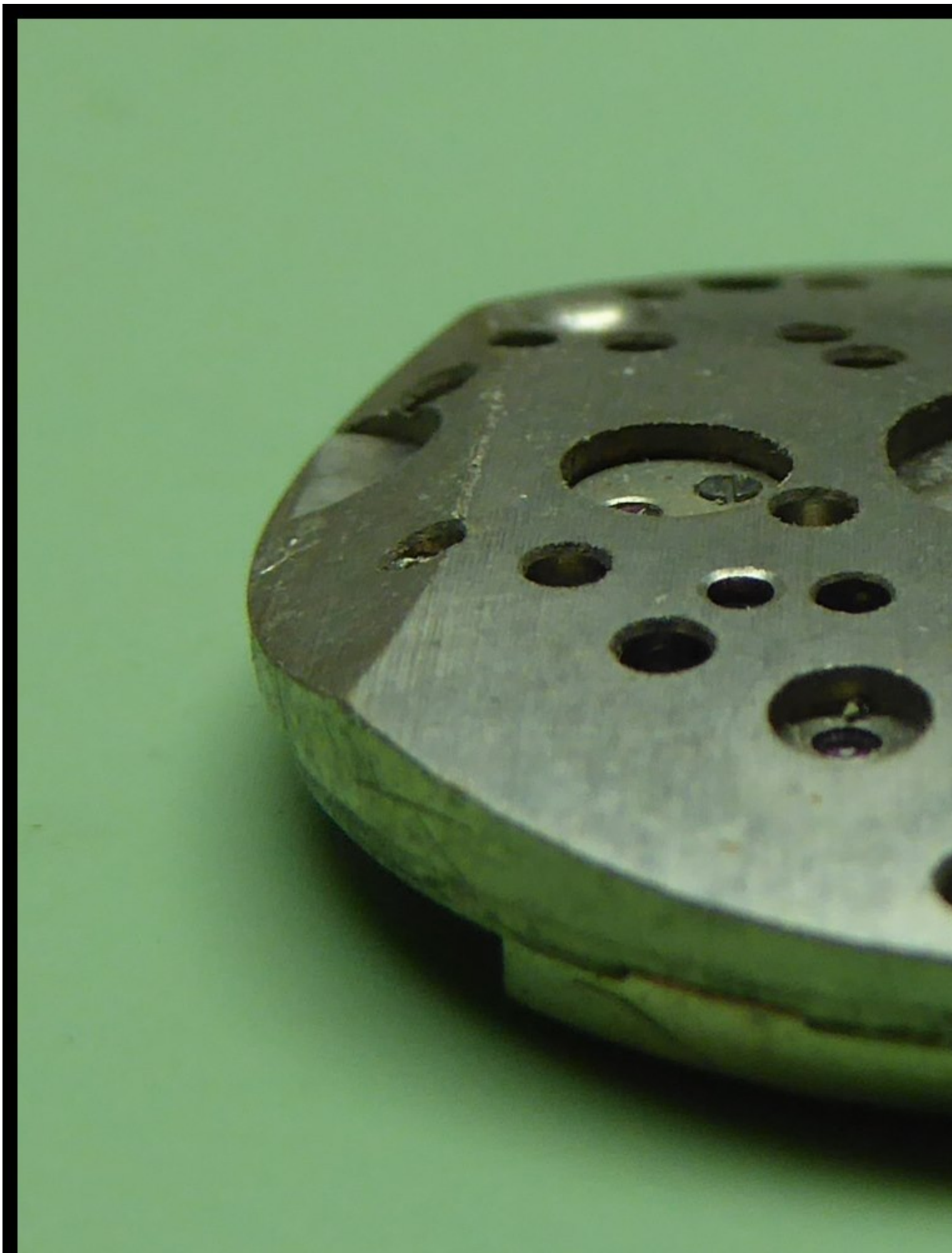
Interestingly, the 411C is not shown directly in the Interchangeability Tables except for in the 1945

Supplement to the catalog. And there, to make things extra confusing, the terminology is inconsistent... for the Cannon Pinion it shows the 410C and 411C. In the main 1945 catalog, 410F is used to indicate "Flat", but no "C" is shown for the 411. I'm attaching the pages from the Gruen Repairer's Reference since it's so confusing to try to explain.

I assume that the stated differences between flat and curved - Center Wheel, Cannon Pinion, Hour Wheel - are all taller than the normal models to take into account the "Curved" dial. I thought that maybe the second hand would have a longer pipe than a normal movement, but they were not longer. Only the center of the dial appears effected.

File Attachments

1) Gruen 411C and 420 Movements.jpg, downloaded 2835 times



2) 1945 Catalog Supplement.jpg, downloaded 2661 times

98
99
997
100
101
106 -1067-107-1077
1067-106-107-1077-
107 -106-1067-1077
1077-106-1067-107-
115 -1157-117-119-
1157-115-117-119-1
117 -115-1157-119-

3) 1945 Main Catalog.jpg, downloaded 2613 times

N

455
457
459

465
467
469

485
487

500
501
502 (see 311)

520 (see 307)

530 (see 300)

Subject: Re: The caliber 411
Posted by Gary on Tue, 07 Jul 2015 01:03:13 GMT
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Nice catch Mike! flipping the movements over to the dial side shows the difference.

The 448 catalog notes the 410-411 curved has identical parts as the 405-406. The 410-411 flat is the same with exception of center wheel, cannon pinion and hour wheel.

File Attachments

1) 411_1.jpg, downloaded 2637 times



Subject: Re: The caliber 411
Posted by JackW on Tue, 07 Jul 2015 02:15:29 GMT
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JackW wrote on Sat, 01 June 2013 20:25 the shape of the bridges are different with the edges tapered.

Don't know why I wrote bridges; it is clearly the top plate.

Quote:I think there is a difference in the canon pinion, center wheel and hour wheel...

well, I got that right...

GaryMThe 410-411 flat is the same with exception of center wheel, cannon pinion and hour wheel.

Subject: Re: The caliber 411
Posted by MikeTheWatchGuy on Tue, 07 Jul 2015 14:30:44 GMT
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I found an interesting "Glue-in" entry for the 410 that was glued into a copy of the 1939 catalog. It's the only movement information block in a Gruen catalog that has the 410 by itself. It shows that Gruen did mail out updates to the catalogs over time as there is no catalog that this 410 only block could have been cut from to glue into the 1939 catalog. Surprised we don't run into more of these updated catalogs. Perhaps you had to write to Gruen to get them rather than Gruen mailing them out automatically.

This is the glued in entry from the 1939 catalog

All of the other catalogs show the 410 and 420 movements together. This one is from the 1945 catalog.

As pointed out by Gary and Jack, they state here that the curved models have a different cannon pinion, center wheel and hour wheel than the flat version. I would like to measure the cannon pinion and hour wheel to see if they are taller as I suspect they would need to be. Gary's photos with dials on the movements demonstrates why they would need to be longer; there's a larger gap between the dial and movement on the curved model.

File Attachments

1) Gruen 410 420 caliber from 1945.jpg, downloaded 2720 times

10½‴ **No. 410-411**
410SS-411SS

11½‴ **420-421**
420SS-421SS





Nos. 410-420 — 17 jewels *(capped escape wheel with conical pivots)*

Nos. 411-421 — 15 jewels *(straight escape wheel pivots)*

All models have 2 sizes stems, detents and screws and intermediate bridges.

Nos. 410SS-420SS—17 jewels
Nos. 411SS-421SS—15 jewels
} *Sweep-second movements requiring sweep-second wheel and pinion*

Nos. 410SS, 411SS, 420SS and **421SS** have center and third wheel and cannon pinion different than regular movements.

Made in both flat and curved models. No. 410-411 *curved* has identical parts as No. 405-406. Model No. 410-411 *flat* is same with the exception of center wheel, cannon pinion and hour wheel.

2) Gruen 410 Caliber from 1939 glue-in.jpg, downloaded 2791 times

10½‴ No. 410-411





No. 410 — 17 jewels *(capped escape wheel with conical pivots)*

No. 411 — 15 jewels *(straight escape wheel pivots)*

Made in both flat and curved models. No. 410-411 *curved* has identical parts as No. 405-406. Model No. 410-411 *flat* is same with the exception of center wheel, cannon pinion and hour wheel.