

Bulle Clock Serial Number 313749

*Restoration of Bulle Clock
Serial Number 313749.*

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— Early Battery Clock Parts & Restoration

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Restoration photos by kind permission of the owner.

It is not clear whether this Bulle clockette was made under licence by Tempex or whether the parts were shipped from France and assembled in the UK. The dial and base are stamped with the name Tempex and so were probably sourced in the UK whilst the rest of the clock is standard Bulle.

First impressions are that it is in pretty good order, especially the dial, chromium plating and bakelite. But as we have learnt, first impressions don't count for much in the clock restoration world.

This clock has three major faults and a couple of minor ones. As delivered it was not working which proved to be the fault of one major problem and one minor.

An interesting find on this clock was a small piece of brass hidden behind the chrome pendulum bob. The only reason it could have been there was a extra weight to slow the rate down. So a previous repairer must have had a problem trying to adjust the rate and resorted to one of the old tricks of adding weight to the pendulum .

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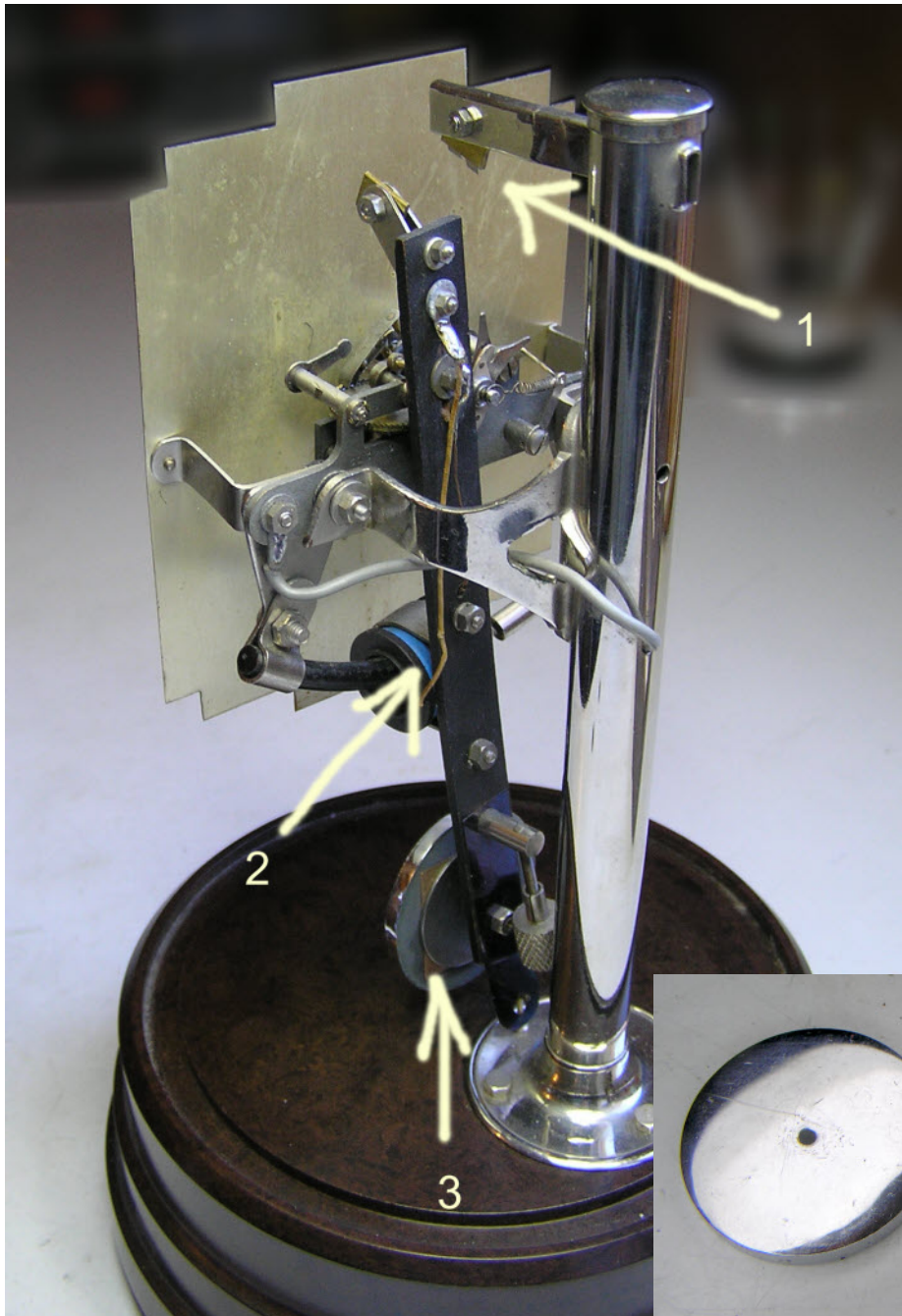
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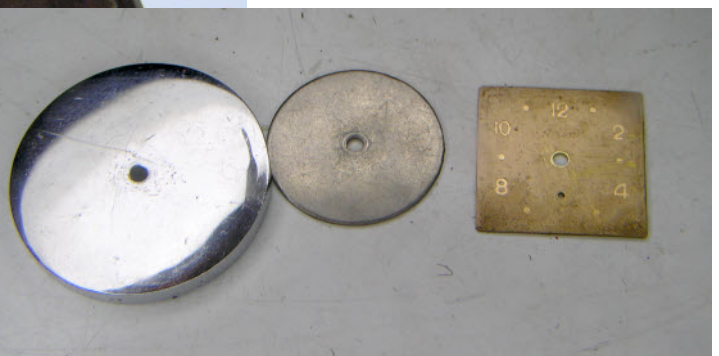
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The reverse of the clock shows the broken suspension which is of the wrong type. The silk suspension unit has been replaced by a thin steel type that has required the frame and pendulum mountings to be squeezed in and deformed in the process (1). The coil has been wrapped in Blue PVC tape which doesn't bode well for the winding.(2). Finally the pendulum bob has had a little extra weight added in the form of a watch dial (3). The dial has been removed and can be seen in the photo below.



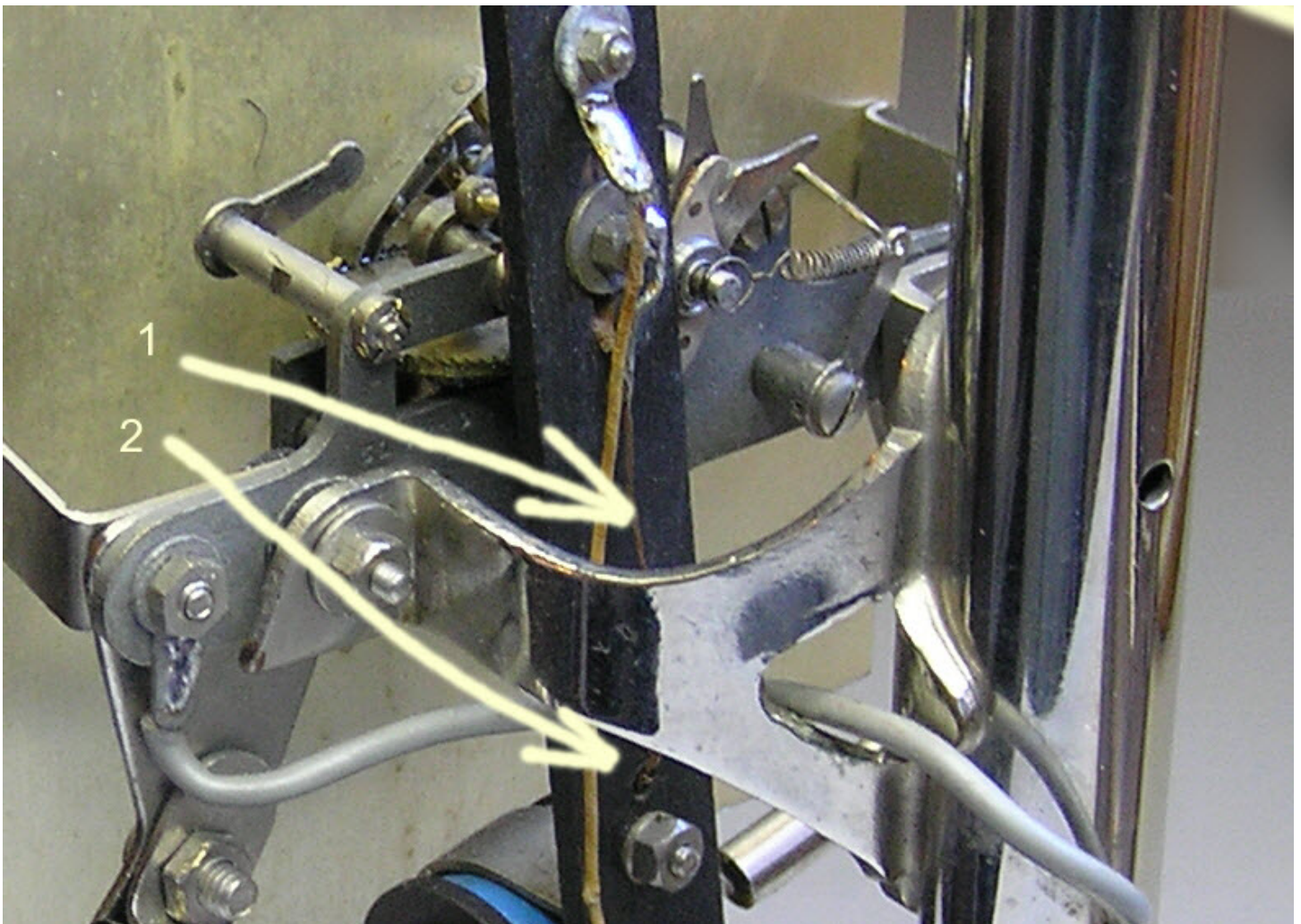
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This photo shows the lead (1) from the coil to the contact pin is completely bare and devoid of insulation. The cable passes from the front to the rear of the wooden pendulum rod through a small hole (2).

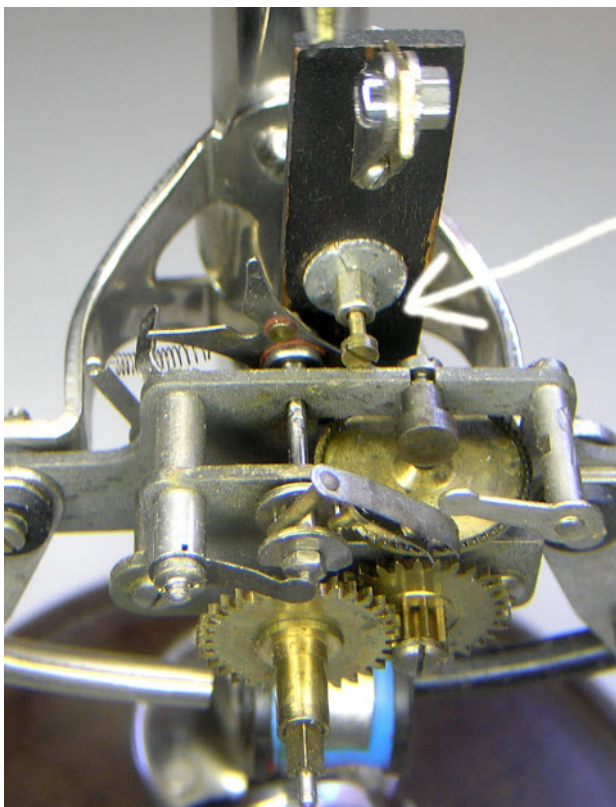
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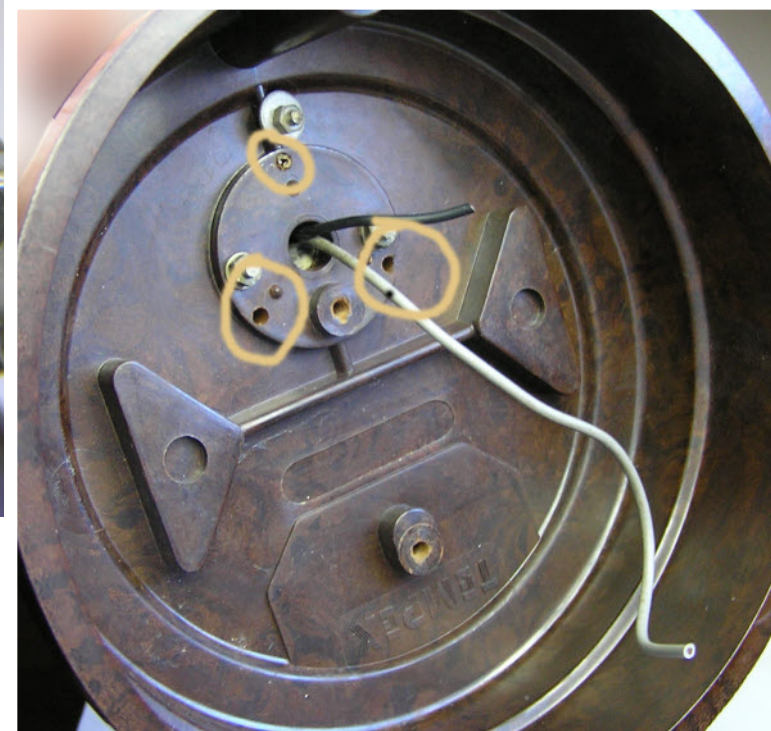
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The contact pin has been replaced with a brass screw!!! They could have at least trimmed the head off before using it. The body of the fitting that passes through the pendulum rod has been butchered during this process. The thread has been stripped. A new body will need to be manufactured.



The photos left and above shows the three extra holes (circled) in the bakelite base. The column is now offset with only a third of the hole up the column visible from underneath.. It is only by luck that the holes are not visible from the top when the column is in position. The wide base of the chromium plated column extends over them as can be seen from the dark area in the photo left. I have no idea why it was done.

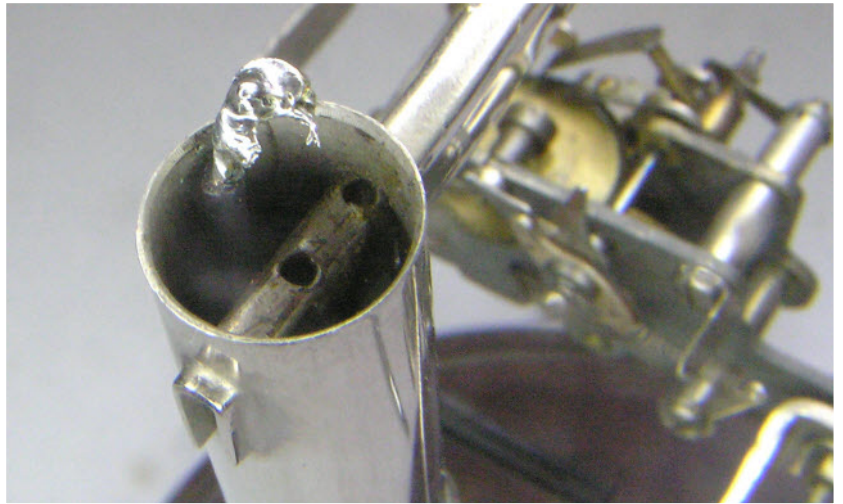
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These two photos show one of the reasons the clock failed to run. One of the battery wires was soldered to the inside of the column. Unfortunately it was a dry joint as can be seen in the second photo. It just lifted off when the wire was waggled from underneath. The best place for this wire to be attached is underneath the Bakelite base using one of the column securing nuts and bolts that are easily accessible.



This photo shows the tidy little method of securing the pendulum rod during transport. A strip of blued spring steel is secured to the wood rod by the bolts holding the rating nut and pendulum bob. The lower end of this spring extends down past the end of the rod and has a hole in the end. The spring steel is then bent backward to secure it to the small hook attached to the column base.



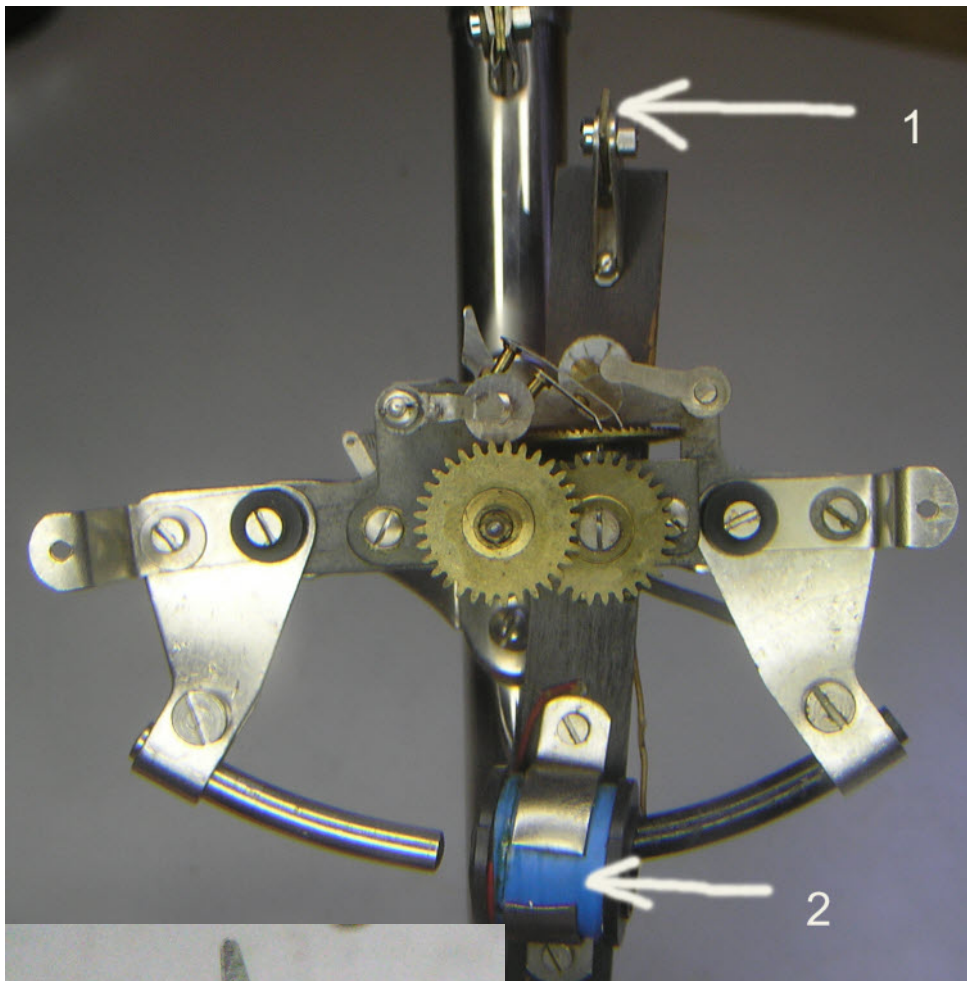
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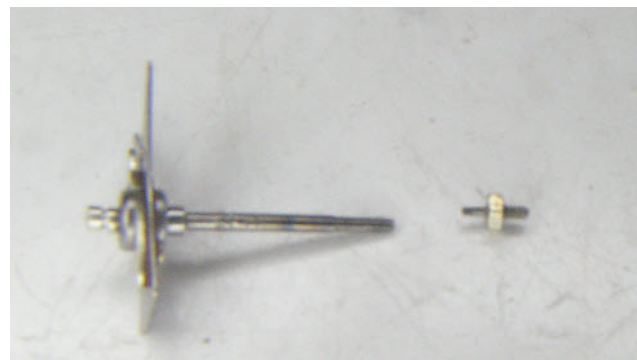
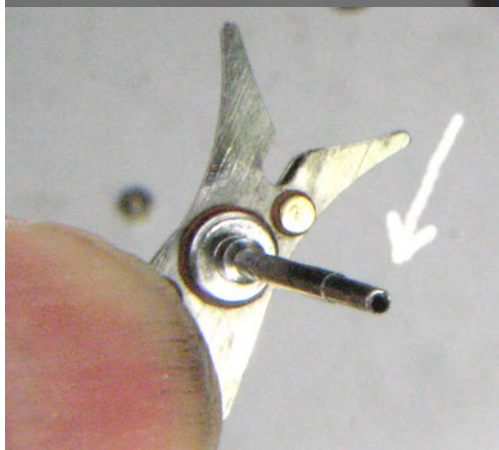
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This photo shows the broken suspension spring and how it has been clamped by over tightening the nuts on both the pendulum and frame mounting points (1).

The coil can be seen clearly in this photo. It has been wrapped in blue insulation tape which leaves a sticky residue on the coil and will tend to lift the wire if it is not removed very carefully.(2).

The lower two photos show that threaded end of the fork arbour had been broken off at some time in the past. Probably due to prizing off the pawl assembly with a screwdriver. A new hole had been drilled in the end of the arbour and the threaded end inserted.



There is nothing wrong in this type of repair other than the wrong adhesive used. So I will clean it and re-attach with Loc-tite 603.

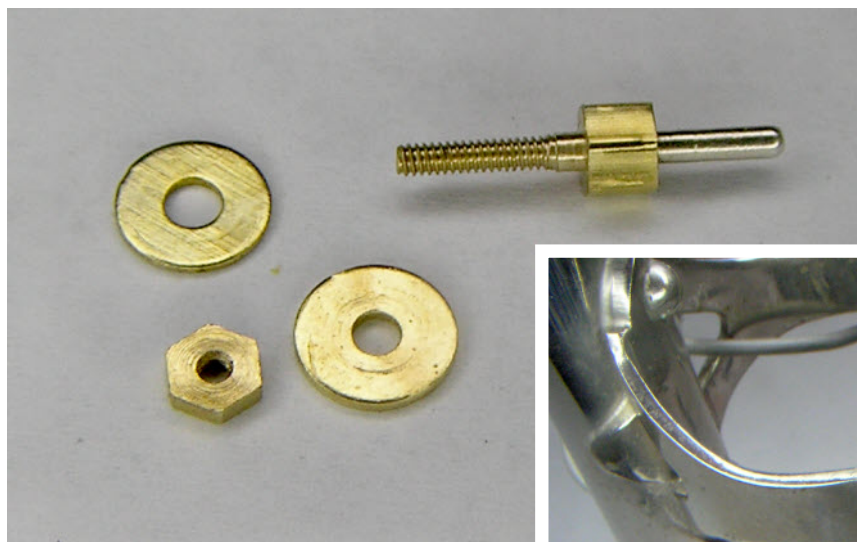
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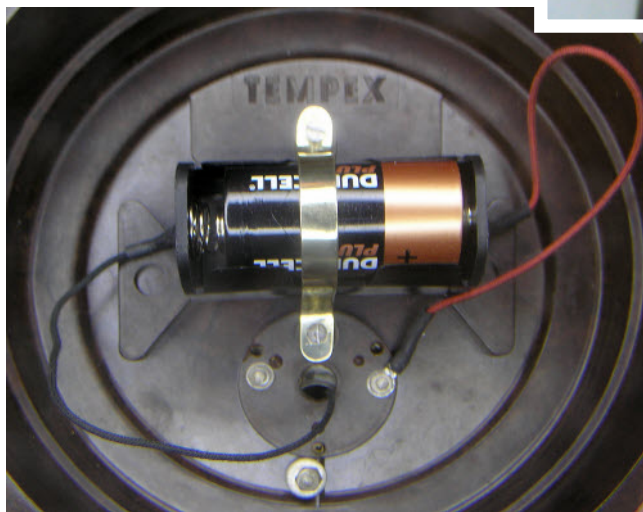
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The new parts for the contact pin assembly ready to be attached. The body of the assembly has been threaded to accept the new silver contact pin.

I have included the photo at right to show how the insulating washers are positioned in this later type of clock. The magnet brackets are fitted to the same location and the washers are both shouldered.. The dial bracket is also attached to the same fixing point.



The underside of the bakelite with the new battery holder in place. I used the existing screw holes for this and made a small frame from some scrap brass to support the battery.

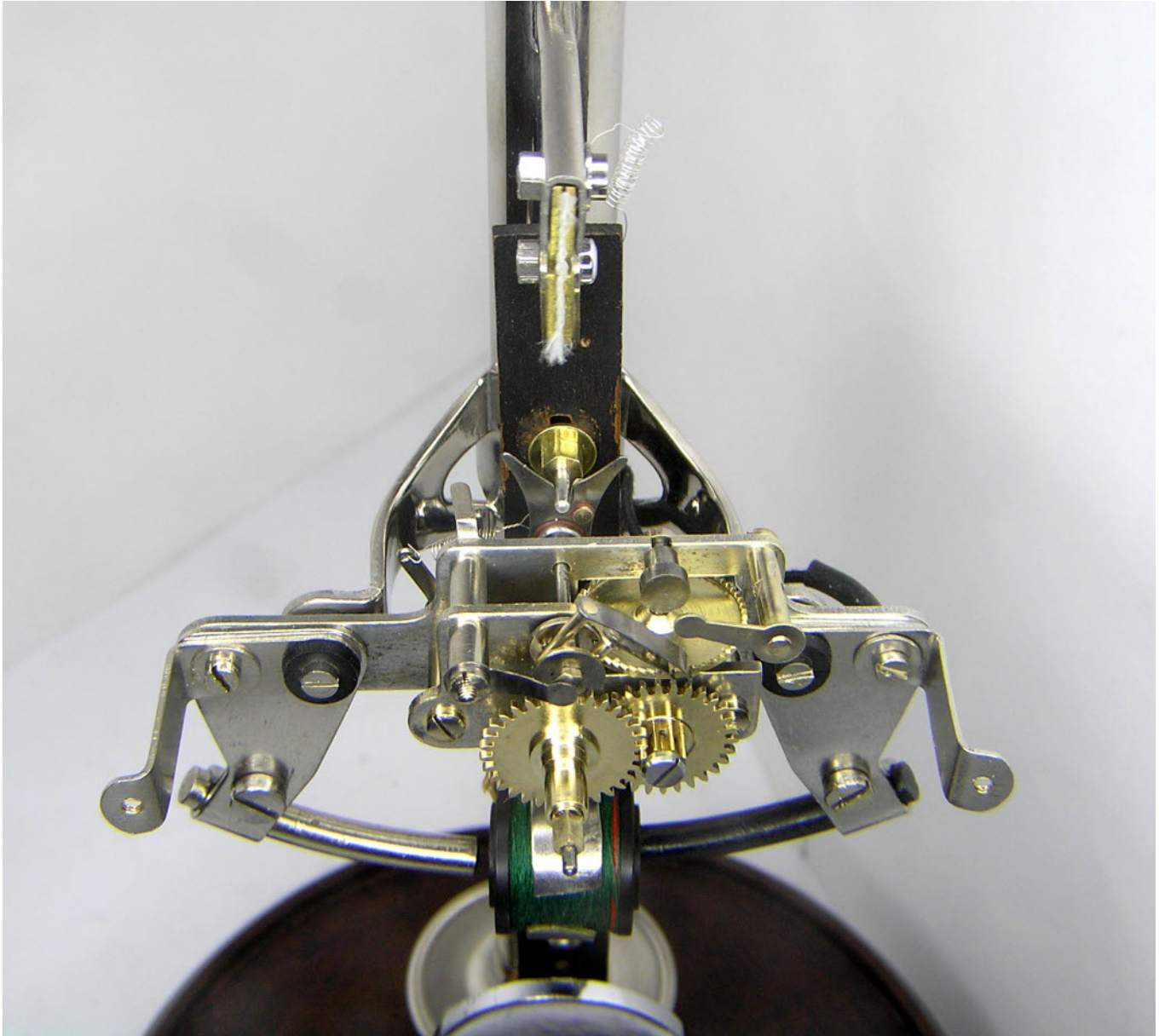
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The finished movement with the new contact assembly in place, The new suspension can also be seen. The frame had to be manipulated carefully to it's original dimensions for the suspension to fit. The recovered pendulum coil can also be seen (green).

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The finished clock

It is currently on test and keeping time to about one minute a week.

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