Disassembling of a simple mechanical watch

(Do this on a watch that is not too precious for you)

The movement used here is Unitas 6497.

Pay attention to how the parts are placed when you disassemble your watch. If necessary, do some sketches.

The first important thing to do is to let down the spring barrel. If you don’t, some difficulties may appear when you will take the pallet out. Wind slightly the watch with the winding stem in order to lift the click. Then with tweezers or another tip pull the click backwards in order to free it from the ratchet teeth (hold the winding stem during all the operation). Let the stem slide between your fingers until the watch is totally let down.

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After you have unscrewed the screw of the balance-cock, take carefully the bridge out. When you do this, be careful that the balance is not stuck under the center wheel or to the pallet because you may bend the balance-spring.

Unscrew the two screws of the pallet bridge and take it out.
Then remove the pallet. No problem will occur if you did not forget to let down the watch.

Remove the two screws of the train wheel bridge. Lift and remove the bridge.
Then remove one after another: the escape wheel, the fourth wheel and the third wheel.

Unscrew the ratchet and take it out.
Unscrew the click screw, remove the click and the spring that is above.

Beware of the screw on the left.
Unscrew the crown wheel and remove it as well as the little washer that is in the center.
If you have not done it before, on the dial side remove the hour wheel and the cannon-pinion.

On the picture I do this with a special tool. You can also do this with tweezers but you have to pull the cannon-pinion really straight because you may bend or break the center stem.

On the movement side, unscrew the three screws of the barrel bridge and remove it.
Take the center wheel out.

Then the barrel.
Unscrew the setting lever spring and take it out.

Remove the intermediate wheels and the minute wheel.
In order to remove the lever spring that is under tension, cover it with a buff and remove the spring with tweezers. If you do not cover the spring or if you remove the lever without removing the spring, be careful with the adjustment of the spring.

Take the lever out.
Unscrew the setting lever screw, the setting lever is going to fall and...

Remove the stem. The wig-wag pinion and the winding pinion are going to fall.
Screw back the balance-cock with its balance and remove the incabloc.

Leave the balance-cock and its balance in their position.

On the dial side, take also the incabloc of the balance out.
If the watch is not old, open the cover of the barrel with a slight pressure on the axle, take the arbour out and leave the spring in its position.

For older watches and automatic watches, it is absolutely necessary to take the spring out in order to change the spring or, for automatic watches, in order to grease the barrel wall (sliding of the clamp).

Everything is ready for the cleaning.