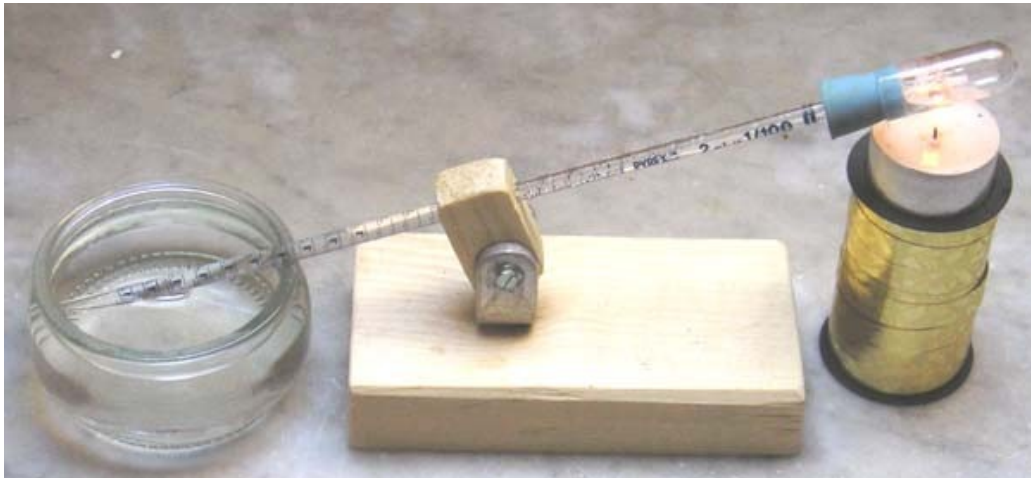


## Pop-pop engine made of Pyrex

For the drum, a shortened test tube. For the tube, a pipette. For the connection, a rubber cork.  
Advantage: Everything is visible!



We could observe the same phenomena as we met with previous engines; but this time we could look at them more clearly.

- **The interface moves slowly while vibrating.** Example: 6 to 10mm stroke. At the beginning, the interface stabilized at 10cm from the drum for 30 seconds, then climbed up to 5cm after 30 seconds, then climbed down to 15cm in 2 min, and then climbed up to 5cm without any action of the operator.
- When heating is stopped, the interface, while vibrating –but less and less-, climbs up slowly. **As soon as one drop of liquid water enters the drum, everything condenses instantaneously.**
- When there is some liquid water inside the drum, **the location of the candle seems to have an influence.** When it is just below the extremity of the water, the vibrating amplitude and bubbles formation seem to be at their utmost.
- **Even with a pipe raising inside the drum** (ex: 21mm above the cork), if we set the candle close to the bottom of the drum, **after a while there is only steam in it**
- **When the drum is well overheated** and the interface at approximately 20cm from the drum, **if the flame is removed, the interface "hesitates"**. It climbs up slowly, reaches the cork level and climbs down, then climbs up slightly upper, then climbs down...until one water drop enters the drum, and then everything condenses. Explanation: the drum cools down relatively quickly due to surrounding air, though the upper part of the tube remains overheated for dozens of seconds.



On this picture, there is very little water remaining in the drum. The interface in the pipe is far on the left (out of the picture).