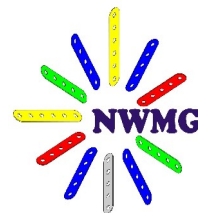


A Foliot & Verge mechanism in 20 Parts.

by Chris Shute for the Christmas Challenge 2011



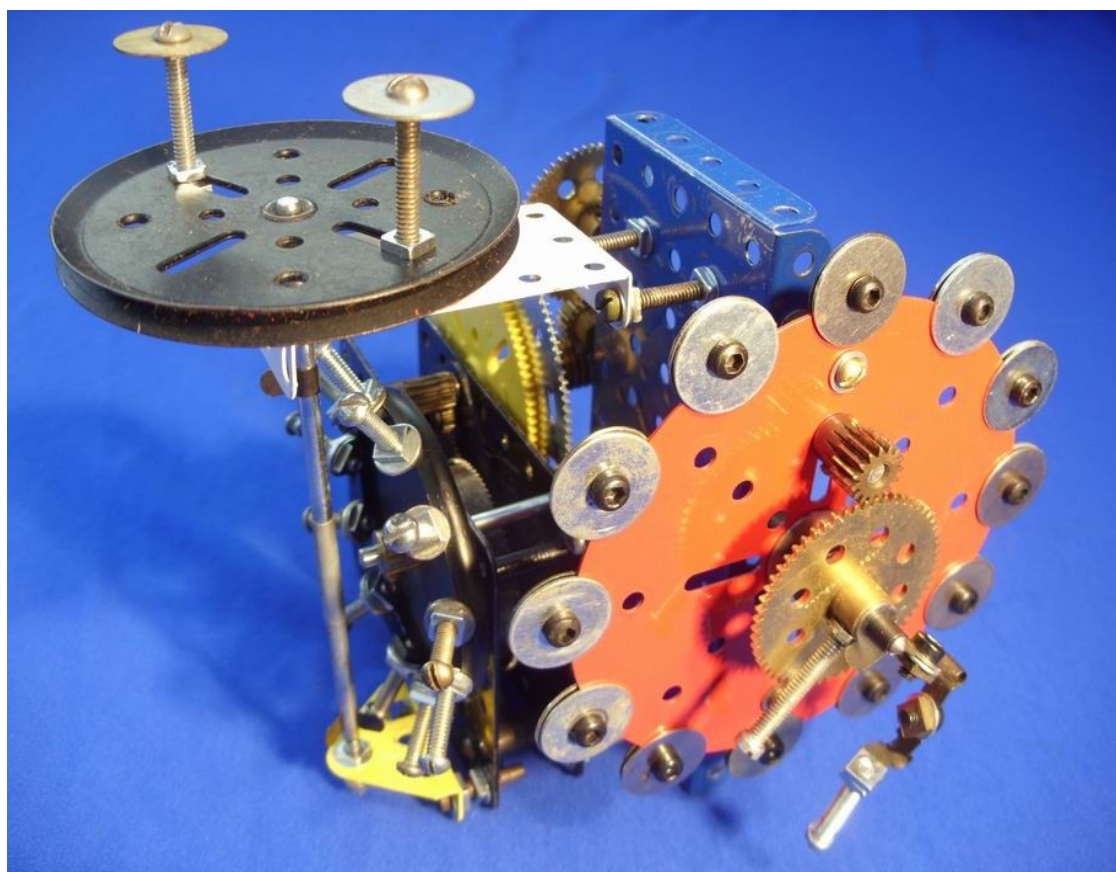
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I thought I'd try to build a better 20-part clock without string or half a GRB. A Foliot & Verge mechanism is easier to build than a pendulum-regulated escapement. The main problem was trying to make an escapement wheel with an odd number of teeth, using minimal parts. The answer was to use a tinplate Road Wheel, and attach 3/4" bolts to the rim by pairs of locked nuts. I used an Elektrikit Pivot Bolt (part 545) as a low-friction needle-bearing to support the pallet rod. As it's a bolt, I haven't counted it in the 20 parts. Oh, and all 9 of my 27b Gears (133 teeth) are still in use elsewhere, so I had to make a substitute from a repro Gear Ring and a plastic 95t gear (they push-fit together), which I've counted as a single part. The 1 1/2" rod supplied with the Clockwork Motor was too short to be used for the output shaft, so I discarded it and then used a 2 1/2" rod AND counted that as one of the 20 parts allowed.

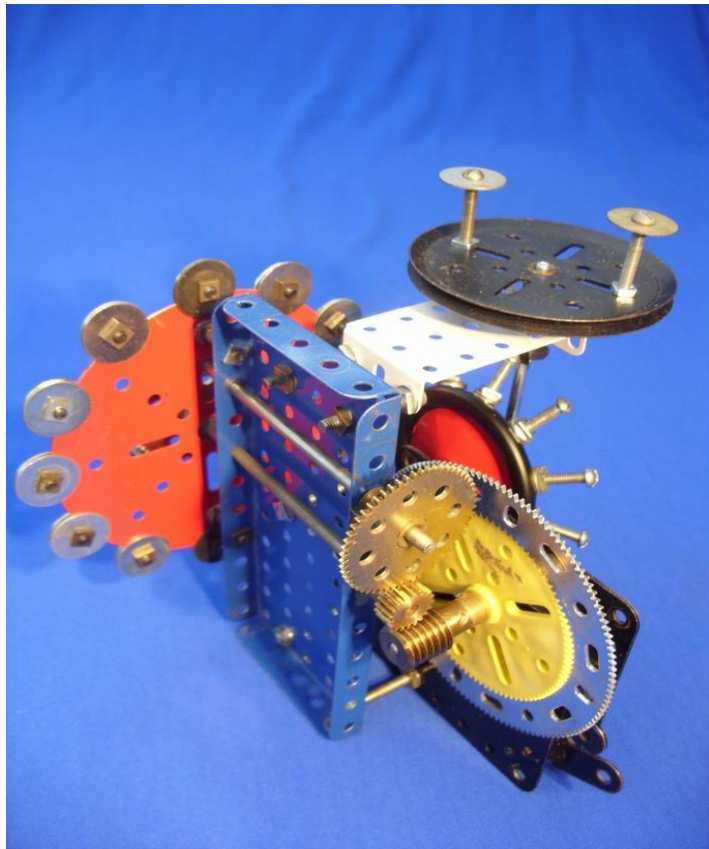
The clock does not use my best motor, and occasionally stops. I'm sure this is due to some muck on the motor's internal gears, not the escapement or drive to the hands. Running time should be more than 18 hours, by which time the mainspring will have unwound enough to foul the escapement shaft.

Parts used are as follows:

14b,15a,16, 16a (two), 19b, 26 (two), 26c, 26d, 27a, 27b (= 95t + gear Ring, counted as one part), 51,52,126,146a, 187, 213, 549, and a Clockwork Motor.



The rear of the clock, showing gearing to the hands. The Gear Ring/95t assembly is a substitute 133t gear (part 27b) which I've counted as one part only.



Some detail of the lower pallet and escapement in my new 20 Part Clock.

