

Earnshaw Spring Detent Chronometer Escapement  
Moment of Unlocking

$\angle CAD$  : Escaping Angle of  $36^\circ$   
 $\angle EBF$  : Impulse Angle of  $24^\circ$   
 $ATH$  : Quiescent  $\epsilon$  of Detent

$\frac{1}{2} \varnothing$  Impulse Pallet =  $\varnothing$  Unlocking Pallet  
 point H : Flex-Point of spring =  $\sim 1.25 \varnothing$  Escape Wheel

$\overline{TJ}$  is  $90^\circ$  to  $\overline{AF}$   
 $\overline{TK}$  is  $10^\circ$  to  $\overline{TJ}$  = locking face of tooth  
 $\overline{TL}$  is  $5^\circ$  to  $\overline{TJ}$  = locking face of stone

$\overline{HM}$  ( $1^\circ$ ) = limit of locking of the stone  
 Locking stone is  $1/18$ th of escape wheel  $\varnothing$   
*i.e.* 9 mm Escape wheel =  $\frac{1}{2}$  mm locking stone  
 Unlocking Roller  $\varnothing$  is  $\sim 0.45$  Impulse Roller  $\varnothing$   
 Impulse Pallet  $\sim 0.26$  mm  
 Unlocking Pallet  $\sim 0.24$  mm

$\overline{AC''}$  is Impulse pallet face at moment of unlocking

$\angle AHP$  : Unlocking Angle  
 $\angle AHQ$  : Detent Discharge Angle

$\angle SAC <$  Tooth Space ( $24^\circ$ )

At Drop Point:  
 - Impulse Pallet at  $\overline{AC''}$   
 - Unlocking Pallet at  $\overline{AP}$

