

The clock is famous \_\_\_\_\_ its reliability, which can be attributed to one \_\_\_\_\_ its designers, the horologist Edmund Beckett Denison. The tower was completed \_\_\_\_\_ 1859, so Denison had time to experiment and invented the double three-legged gravity escapement which provided the best separation \_\_\_\_\_ pendulum and clock mechanism. The pendulum is installed \_\_\_\_\_ an enclosed windproof box sunk \_\_\_\_\_ the clockroom. It is 3.9m long, weighs 300 kg and beats every two seconds. The clockwork mechanism \_\_\_\_\_ the room below weighs five tons.

The idiom of putting a penny \_\_\_\_\_, with the meaning \_\_\_\_\_ slowing down, sprang \_\_\_\_\_ the method \_\_\_\_\_ fine-tuning the clock's pendulum. \_\_\_\_\_ top \_\_\_\_\_ the pendulum is a small stack \_\_\_\_\_ old penny coins; these are to adjust the time \_\_\_\_\_ the clock. Adding or subtracting coins has the effect of minutely altering the position \_\_\_\_\_ the pendulum's centre \_\_\_\_\_ mass: adding or removing a penny changes the clock's speed \_\_\_\_\_ 0.4 seconds \_\_\_\_\_ day.