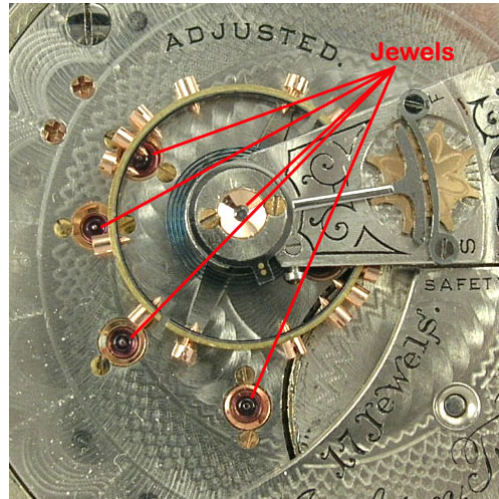


## Why do Watches have Jewels?



Whenever somebody purchases a wrist watch, he often enquires about the number of jewels in it. The number of jewels is inscribed or printed on the outer cases or the dial of the watch. It is commonly believed and rightly too that the larger the number of jewels, the better and more durable the watch is. Would you like to know what are jewels and why are they fitted into watches?

A good watch is one which gives correct time and does not easily go out of order. If you open a watch, you will notice that the internal mechanism of a watch is very complicated. It has many big and small parts of different kinds. A watch contains roughly 211 parts. Amongst these parts is a small wheel which is always in motion. Along with it, there is a hair-like wire which is called a spring. When we wind the spring, the watch starts ticking. The energy stored in the spring by winding is used for running the watch. In addition to this wheel, there are many other wheels, which are constantly rotating. These wheels move the hour, minute and second hands. The axles of these wheels rest on pivots. When the wheels rotate, friction is generated between the axles and the pivots. Due to this friction, pivots and axles can wear out soon and then the watch will show incorrect time, and finally stop working. To reduce this friction, small pieces of some very hard but smooth materials are used as pivots. These small pieces are called jewels. In general, the materials to be used as jewels are ruby and sapphire. They are precious stones next to diamond in hardness. The axles of the wheels of the watches pivoted on these jewels go on rotating without experiencing much friction. Because of hardness, these jewels do not wear out soon and the watch does not go out of order easily. Hence jewels are used in watches to prolong their life.