

# ***BIG BEN***







***Big Ben - the bell tower in London, the part of the architectural complex of the Palace of Westminster.***

***The official name - "Clock Tower of Westminster Palace", also called "the Tower of St. Stephen. "***

The tower was built in  
1858, the clock tower  
was set on foot 21 May  
1859.







*Big Ben - is not the name of the tower,  
but the name of the 13-ton bell that rings  
inside.*



*In 1844 by the decision of the Parliament there was established a commission for the construction of the clock tower. The following requirements for clock were: the first hit of the bell should correspond to hour up to a second.*



*But by 1851, there was found a designer who decided to such a step - Edmund Beckett Denison, who decided to break the record of weight of the bell in York ("Peter the Great") in 10 tons and cast a bell weighing 16 tons.*





*Casting was engaged by George Mears.*

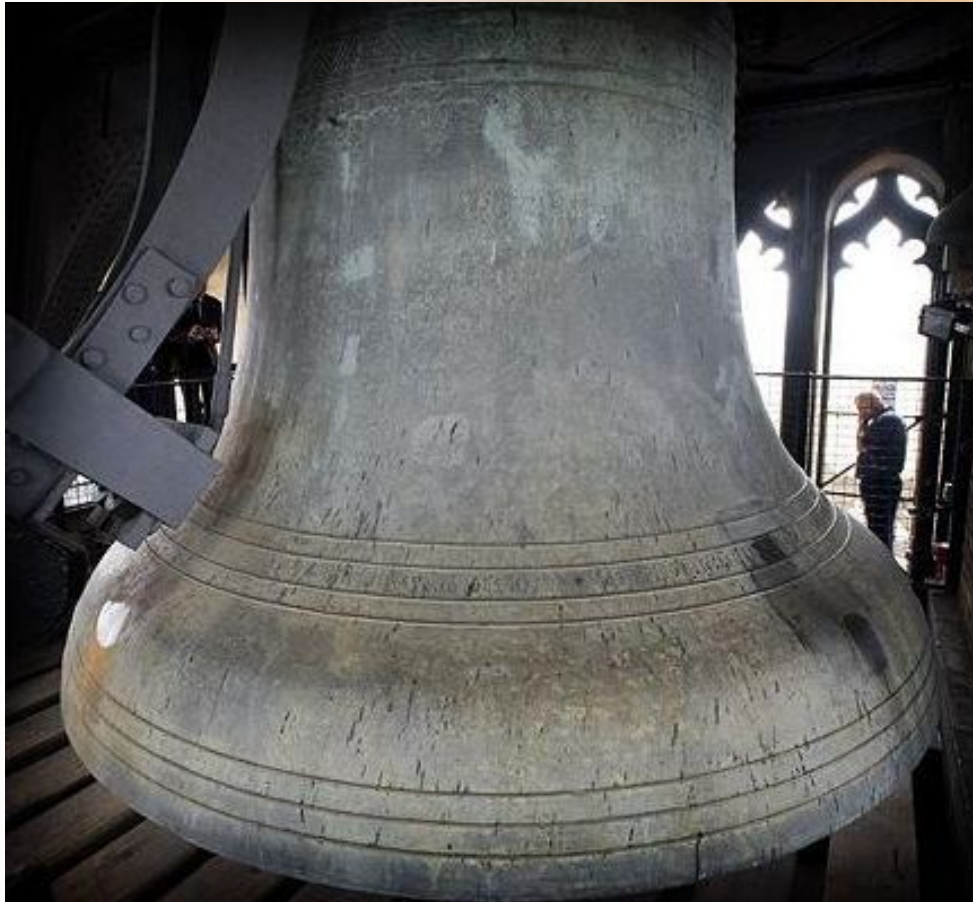
*During the week the bell was melting and then 20 days were spent on the fact that the metal cooled down and took shape. It happened on April 10, 1858*

*And after testing May 31, 1859 the bell was taken to the building of the Parliament with the enthusiastic cheers of the crowd.*



*However, after 2 months the bell cracked to a huge upset of Denison. Weight of the hammer which beat the bell, was twice as heavy as the maximum possible weight of the hammer defined by George Mears.*

*During 3 years the bell was inactive, and instead beat off hours bell, responsible for a quarter of an hour.*




*Later there was made easier bolt , but the crack is still making its presence felt in the world famous chimes.*



*Iron arrows were poured from a lighter alloy. Clock was opened May 31, 1859. Up to 1912 clock was covered by gas jets, which were later replaced by electric lamps. And on the radio for the first time chimes sounded December 31, 1923.*

**BIG BEN**  
**THE LARGEST BELL EVER CAST IN ENGLAND**  
**AND THE FOUR QUARTER BELLS**  
**FOR THE CLOCK TOWER OF THE NEW HOUSES OF PARLIAMENT.**


1<sup>st</sup> QUARTER



3 ft. 9 in. DIAMETER. NOTE A Natural.  
Weight 1 Ton 1 Cwt.



2<sup>nd</sup> QUARTER



4 ft. DIAMETER. NOTE G. Natural.  
Weight 1 Ton 6 Cwts.


NOTE E NATURAL, AS  
**CAST BY JOHN WARNER & SONS,**  
 BELL & BRASS FOUNDERS TO HER MAJESTY, CRESCENT FOUNDRY, LONDON.

DIAMETER AT MOUTH 9 ft. 5 in. HEIGHT 7 ft. 10 in. THICKNESS OF SOUND BOW 9 in. WEIGHT WITH CLAPPER 15 tons 10 cwt 2 lbs.

THE ABOVE ILLUSTRATION REPRESENTS "BIG BEN" AS SUSPENDED FOR THE VARIOUS TRIALS TO WHICH THE EXPERTS SUBMITTED THE BELL.

ON THE LEFT IS SHOWN THE EXPERIMENTAL CLAPPER HAMMER, WEIGHING 15 CWT., BAIRED BY MACHINERY AND ALLOWED TO FALL ON THE BELL WITH A WEIGHT AND FORCE EQUAL TO ONE AND A QUARTER TON.

ON THE RIGHT IS REPRESENTED TEN MEN, WHOSE COMBINED FORCE EQUALLED THE BELL'S WEIGHT, CLIPPING AND CAUSING IT TO RING, WITHOUT AT TIMES THAT THE BELL OFTEN STRUCK THE FIXED EXPERIMENTAL HAMMER.




OPINIONS ARE COMPARED AND WE ARE HAPPY TO SAY IT IS UNANIMALLY ACKNOWLEDGED, THE BELL IS WITHOUT FLAW OR CRACK.

IT WAS FOUND, AS WE GATHERED FROM THE TOWER, THAT THE FORCE OF THE BELL, JARRING IN NOTES OF ITS ENHANCED TONE, A VERY MAGNIFICENT SOUND, UNTIL WHEN WE REACHED THE MURDER OF ST. MARGARET'S CHURCH.


"The Times," Nov. 14, 1860.

3<sup>rd</sup> QUARTER



5 ft. 6 in. DIAMETER. NOTE F Natural.  
Weight 1 Ton 15 Cwts 10 lb.

4<sup>th</sup> QUARTER



6 ft. DIAMETER. NOTE G Natural.  
Weight 3 Tons 1 Cwt 20 lbs 24 Cwts.

"THE TRUTH IS THAT THE DIFFERENCE IN THE SIZE OF THE CLAPPER IN THE BELL, GIVING A MORE GREATER POWER, BOTH OF BRASSING BOWS AND BEING SET BACK THAN USUAL." - Rev. Lecture at the Royal Institution, March 30, 1861.



The mechanism that activates the hammer of the bell of Big Ben.



*The tower is 61 meters (not counting the spire) clock is at a height of 55 m above the ground. With a diameter of the dial in 7 meters and a length of the arrows in the 2.7 and 4.2 meters, height of each figure - just 61 centimeters. Clock was long considered the largest in the world.*





*The name Big Ben is surrounded by interesting stories. The official version: the bell is named after the chief of construction sulfur Benjamin Hall. For its impressive size foreman was given the nickname Big Ben. Another version - the bell got its name from the athlete and boxer of times of Queen Victoria.*





*On the perimeter  
of the tower on  
the right and left  
of the clock there  
is inscribed the  
phrase in Latin:  
«Laus Deo»  
(«Thank God" or  
"Glory to God")*





***There are also many different copies of the famous Big Ben.***



















