In 1900 David Hilbert proposed a famous list of 23 open problems. The third problem asked: Given two polyhedra of equal volume, can you always cut the first one into finitely many pieces (with scissors) and reassemble the pieces to form the second? This problem was the first of these problems to be solved, by Hilbert’s own student Max Dehn. The answer was “no”. I will discuss a modern, simplified version of Dehn’s proof.