

an anvil with a hammer of one pound weight, and then with a hammer of two pounds, it is plain that the latter will produce a sound twice as grave as the former. But if we strike with a two pound hammer, and then with a three pound, the last will produce a sound only one third more grave than the former. If we strike with a three, and then with a four, it will likewise follow that the latter will be a quarter part more grave than the former. Now, in the comparing between all those sounds, it is obvious that the difference between one and two is more easily perceived than between two and three, three and four, or any numbers succeeding in the same proportion. The succession of sounds will be, therefore, pleasing in proportion to the ease with which they may be distinguished. That sound which is double the former, or in other words, the octave to the preceding tone, will be the most pleasing harmony. The next to that, which is as two to three, will be most agreeable. And thus universally, those sounds whose differences may be most easily compared are the most agreeable.

It is most certain that the cause of pleasure in all our senses originates from the justness of proportion, and that disproportion never creates