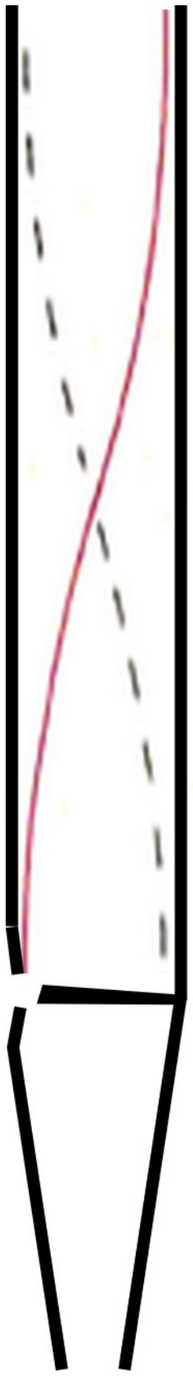
How an organ pipe makes sound - and how the pitch is controlled



Air blown into the bottom of the pipe is forced through the gap behind the mouth of the pipe. This causes a resonance in the body of the pipe. The pitch of this resonance is proportional to the length of the body of the pipe.

Doubling the length of a pipe produces a note which is an octave lower and similarly halving produces an octave higher and so on.

Notes within a particular octave are generated by pipes of varying length - each pipe going up the scale getting progressively shorter.

Traditionally the range of pipes needed for an octave is known by the approximate length of the longest pipe - the lowest note in the octave. 4’ (four foot) 8’ and 16’ are usually present. Large organs, particularly in cathedrals, will have a 32 foot set of pipes.