

Dia
7/5

Philips Technical Review
Vol. 5, 1940, 286-94

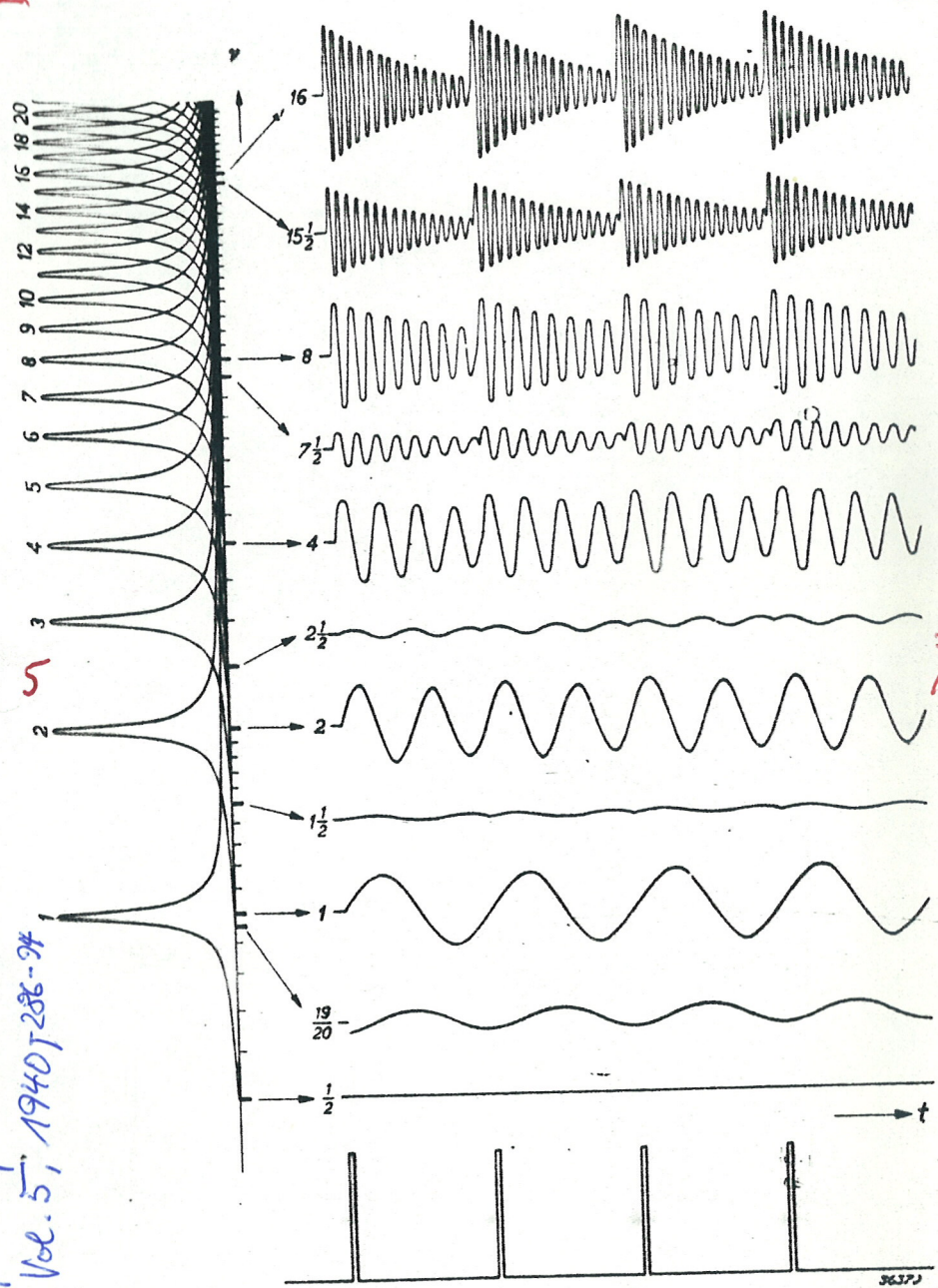


Fig. 4. To the left on a logarithmic frequency scale the excitation curves which indicate for each harmonic of the force (periodic impulse) acting on the model which resonators (characteristic frequency ν) are set in motion and to what extent. The motion occurring is here drawn for a number of resonators (relative characteristic frequency $1/2, 19/20, 1, 1 1/2, 2, 2 1/2, 4, 7 1/2, 8, 15 1/2$ and 16). It may be seen that in the region of the higher harmonics, where the excitation curves overlap each other very much, the vibration of all the resonators clearly shows the periodicity of the fundamental frequency.

RESPONSE OF A SET OF TUNED RESONATORS
TO A PERIODIC IMPULSIVE FORCE

J. F. SCHOUTEN, The Resonance and the mechanism of hearing, in
Proc. Konink. Akad. van Wet.,
1940.

EXCITATION
CURVES

STATIONARY RESPONSE OF RESONATORS

NUMBER OF HARMONIC
↑

↑
Akad. van Wet.

RELATIVE NATURAL FREQUENCY OF RESONATOR
↑

PERIODIC
IMPULSIVE FORCE

→ TIME

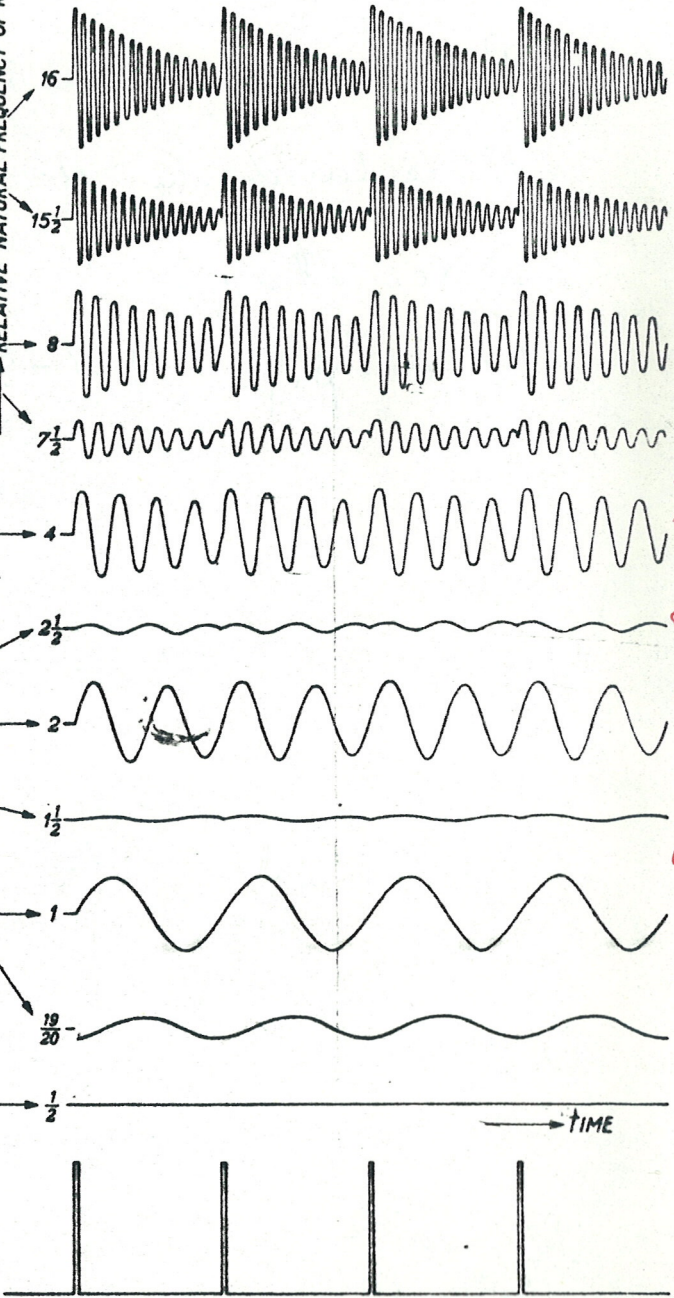


Fig. 1.

in:
Proceedings of Koninklijke
Nederlandsche Akademie van
Wetenschappen Vol. 43, no. 8.
1940 Page 991-999