

**Badische Landesbibliothek Karlsruhe**

**Digitale Sammlung der Badischen Landesbibliothek Karlsruhe**

**The young man's book of amusement**

**Halifax, 1848**

Acoustical Alphabet

[urn:nbn:de:bsz:31-100120](https://nbn-resolving.org/urn:nbn:de:bsz:31-100120)

nerally were parallel with one another: one of these lines passed always through the centre of the membrane, and was contained in the plane which passed through the face of the plate; the direction of the motion consequently continually changed with the direction of the vibrating plate. If instead of holding the plate in the direction of perpendicular to that of the surface, it was inclined; at every degree of inclination the phenomena obtained were different, and the lines traced by the sand continually modified themselves differently, although the number of vibrations remained the same.\*

---

*Acoustical Alphabet.*

By varying the order of arrangement, the whole alphabet may readily be rung on three bells; and these being formed into sentences by short pauses between each word, will fully serve for distant conversation. For musical instruments, it is merely changing keys for bells, and the same purpose may

\* The tones of the flute, trumpet, musical glasses, &c. or of the voice, produced the same results as a vibrating plate. When the tones were successively varied, for example, when a very slow air was performed on the flute, at about nine or ten inches distance from the membrane, the sand was agitated, and traced lines, the combinations of which incessantly varied with the sound produced.—Stringed instruments were not so well calculated to produce these effects. These experiments were varied in a number of ways, by employing membranes, of which the dimensions, nature, and tension, as well as form, were different: they always, however, presented analogous results.

be answered without the trouble of forming changes upon so small a number of fixed tones. A table is subjoined, by the use of which a combination of three bells is made to express the whole alphabet :

A is represented by	111	O is represented by	222
B ..	112	P ..	223
C ..	113	Q ..	231
D ..	121	R ..	232
E ..	122	S ..	233
F ..	123	T ..	311
G ..	131	V ..	312
H ..	132	U ..	313
I ..	133	W ..	321
K ..	211	X ..	322
L ..	212	Y ..	323
M ..	213	Z ..	333
N ..	221		

---

#### *Musical Flame.*

Musical tones are produced by the combustion of hydrogen gas in tubes of different diameters.

---

*The following Experiment is taken from the Century of Inventions of the Marquis of Worcester, and professes to be, "How to make a Brazen or Stone Head in the midst of a great Field, or Garden, so artificially and natural, that though*