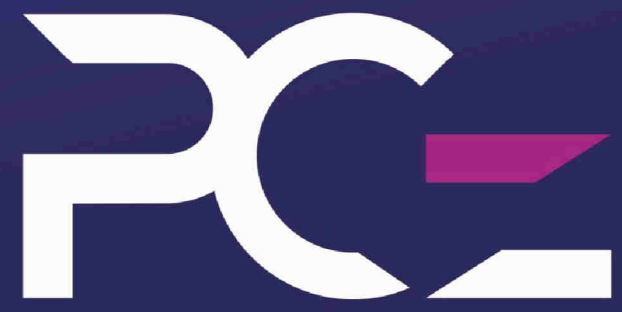




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Acoustic-electric panel energy converter

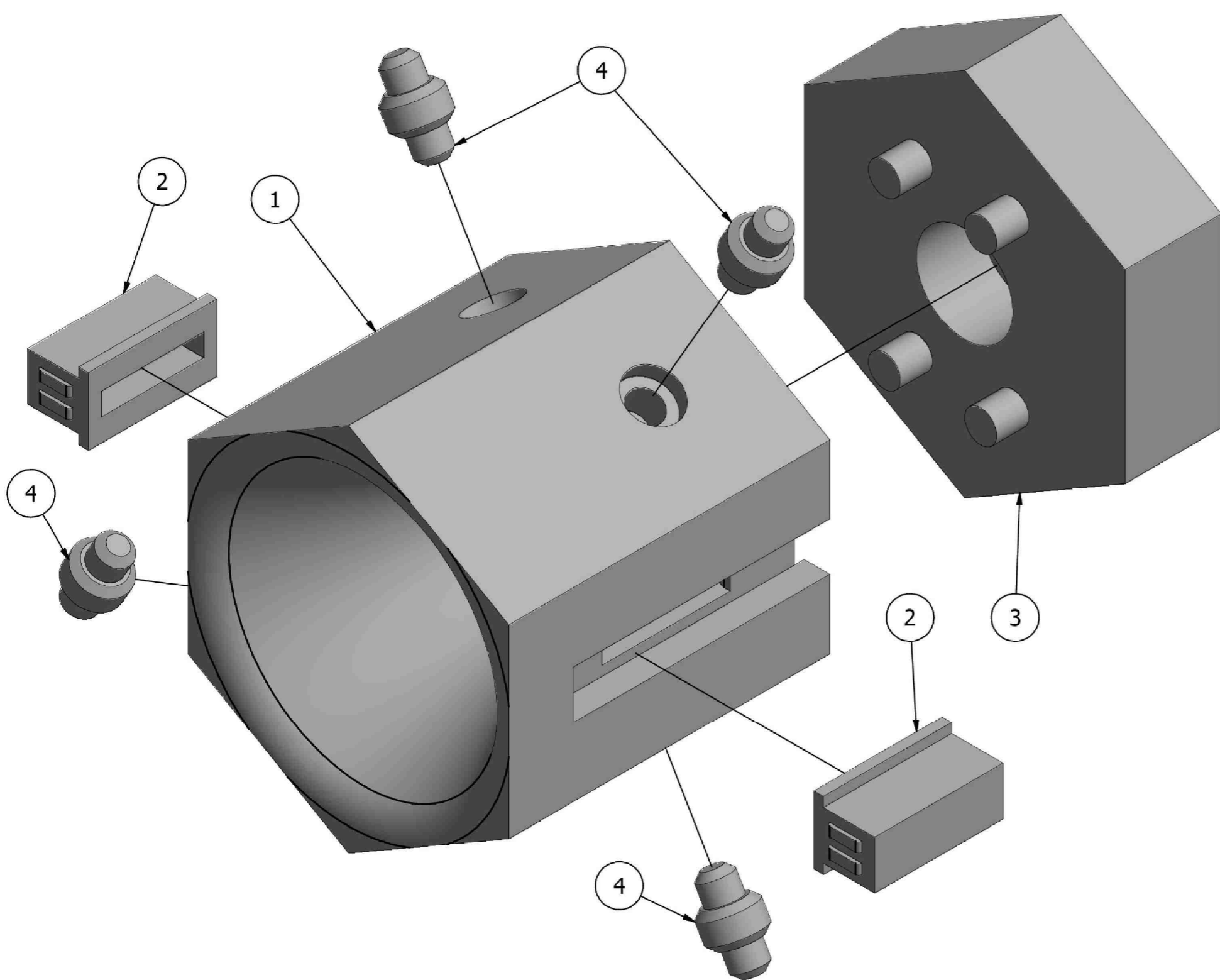
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The subject of the invention is a method of constructing panels that allow obtaining acoustic energy and converting it into electricity.

A single panel consists of four types of parts:

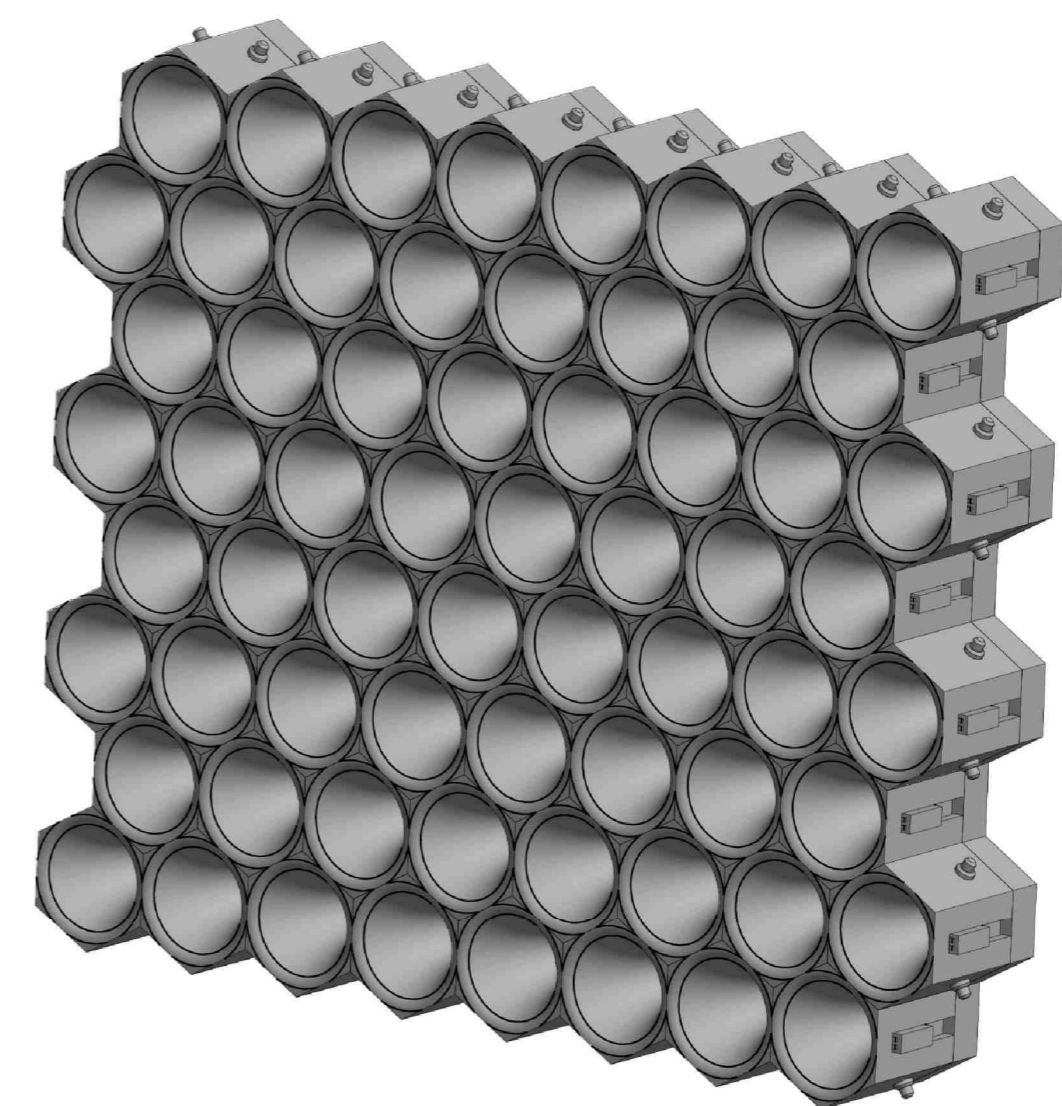
- ✓ incident wave horn type panel (1),
- ✓ sliding module with electrical contacts (2),
- ✓ a locating pin (3),
- ✓ energy harvesting module with converter (4).



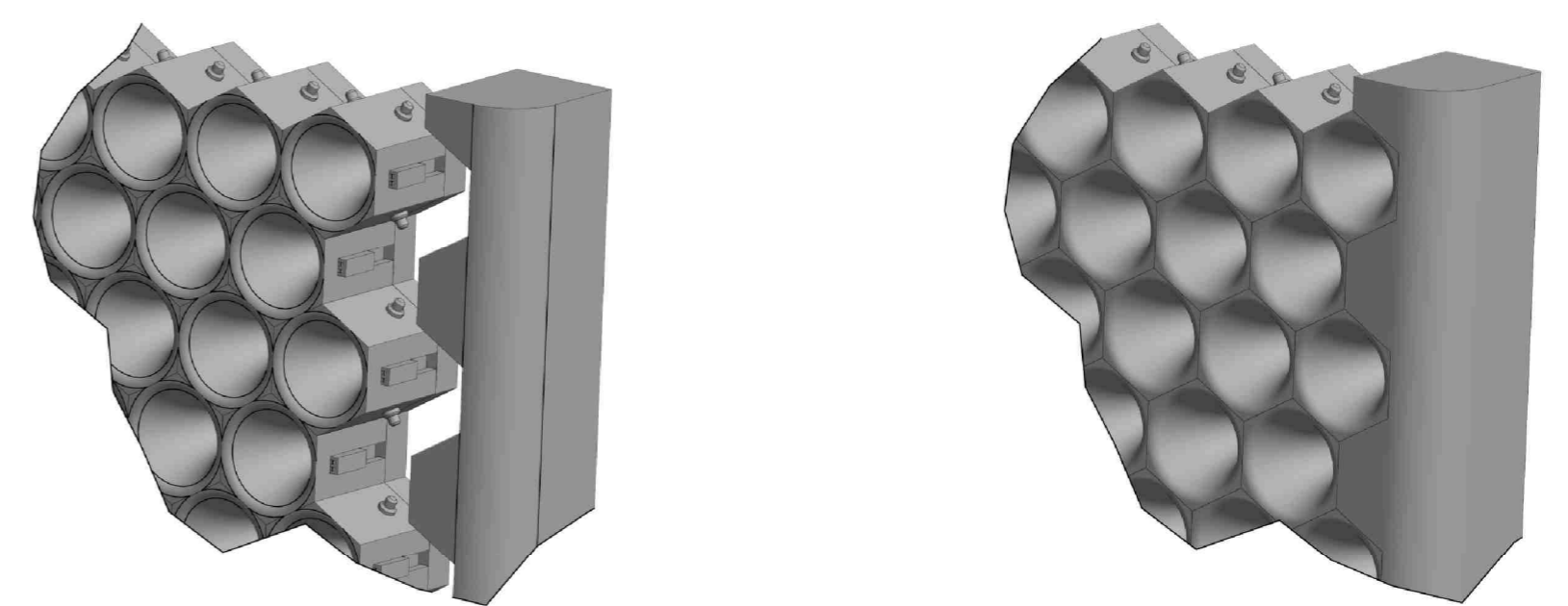
The incident wave horn type panel (1) is constructed in such a way as to intercept the incident mechanical wave and direct it to the energy harvesting module (3), which, depending on the version, converts it using piezoelectric or electromagnetic elements into electricity.

A Graetz bridge that is built into the module converts an alternating-current (AC) input into a direct-current (DC) output.

Depending on the setting, the sliding modules (2) allow for parallel or serial connection of the panels.



The modular construction allows the use of the invention to cover the walls of buildings, allowing to leave free space for the windows or doors.



The shape of the individual panels should be such that they cover the entire surface (in the example, a regular hexagon, but you can also use squares, triangles, etc.).

The developed solution allows for collecting energy, silencing buildings and modern arrangement of the building facade.

Patent application

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