

Testing device for building materials



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PATENT STATUS: GRANTED

PRIORITY NUMBER: MI2013A01493

GRANT DATE: 22/12/2015

Invention

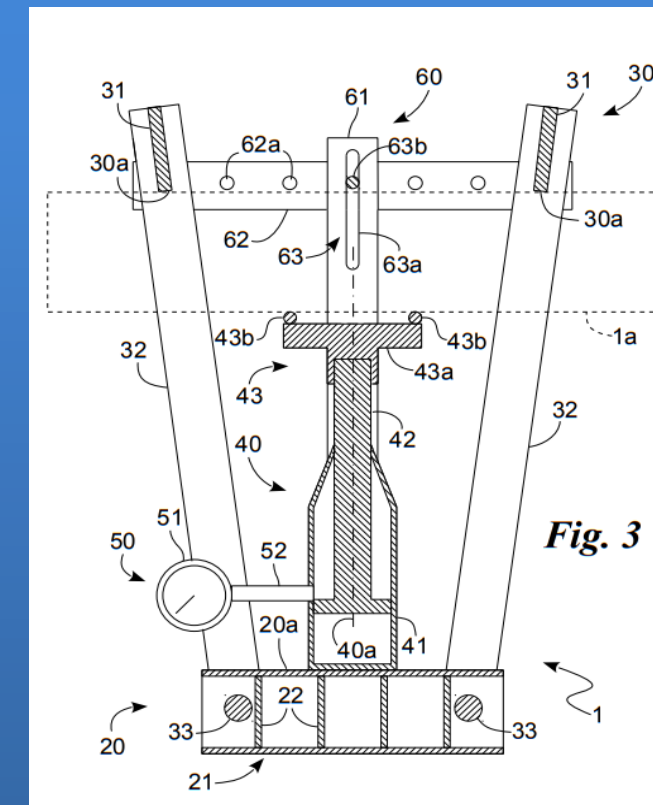
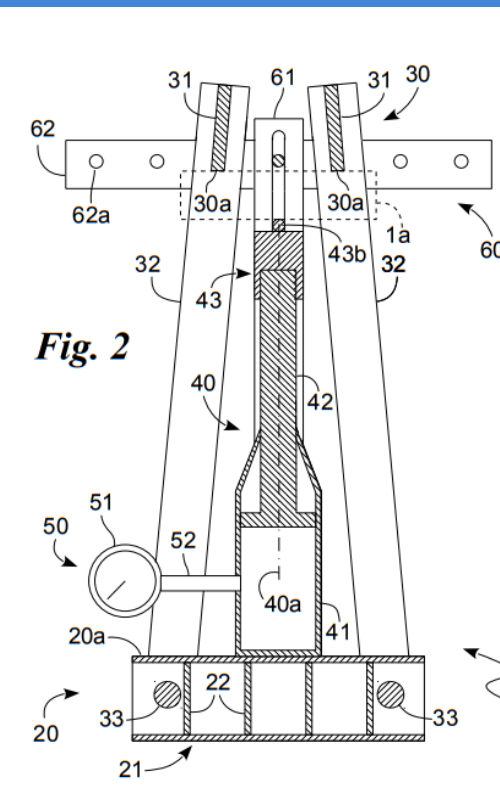
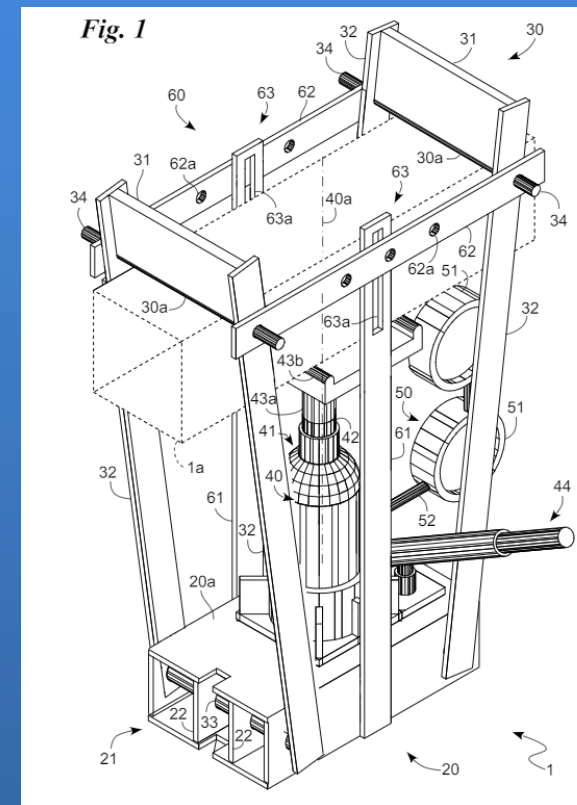


The present invention relates to a building material **testing device for measuring certain mechanical properties of a building material** by performing, for example, compression or flexural failure tests on mortar, concrete and/or brick samples, or bending tests on reinforcing steel bars.

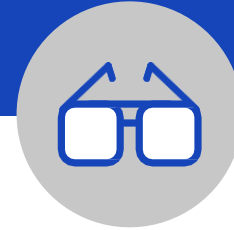
Known state of the art devices are particularly bulky, noisy to the point of often requiring dedicated rooms; they are not transportable devices, it is not possible to carry out tests on site. Moreover, due to the necessary sensors and the complex components, the known devices have particularly high costs, also for maintenance. For this reason, both private and public laboratories equipped with such devices are necessarily reduced in number.

The device object of the invention is designed instead to be **easy to transport, to have a reduced size and weight, reduced production and maintenance costs as well as high ease of use and reliability.**

Drawings
& pictures



Industrial applications



The device can be used in the **construction field** and allows tests to be carried out directly on the building site without having to transport the samples to the nearest laboratory every time a test is required. This use has obvious advantages in terms of cost and time savings.

Furthermore, the use of this technology could represent an innovative solution in those contexts where the use of devices known to the state of the art, characterized by considerable encumbrance, is particularly difficult, for example in the case where the construction site is in regions characterized by natural disasters, wars or conditions of poverty and technical backwardness.

Possible developments



A **prototype of the machine** has been realized; it possesses all the characteristics (lightness, simplicity of use, versatility, sufficient precision) required for an instrument that can be used effectively by technicians operating in environmental conditions that make it impossible or particularly difficult to use as in official laboratories.

Collaboration with industrial partners in the construction sector interested in investing in process innovation could lead to the creation of a complete industrial prototype and initiate a market-oriented valorisation process.

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