

Autonomous variable buoyancy device



INVENTORS: Francesco Fornai
Gabriele Ferri
Cecilia Laschi
Barbara Mazzolai
Giacomo Saviozzi

CO-OWNERS: Istituto Italiano di Tecnologia

Patent Status: Granted

PRIORITY N°: FI2011A000246

Priority Date: 10/11/2011

LICENSE: IT, FR, DE, UK

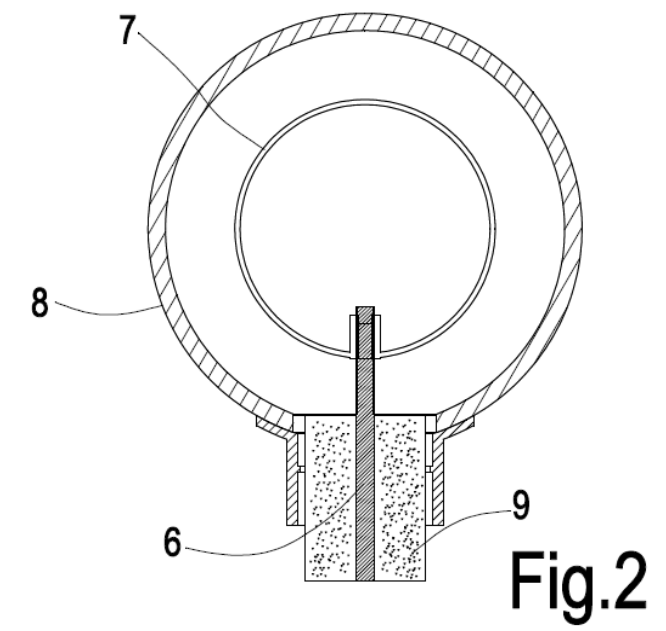
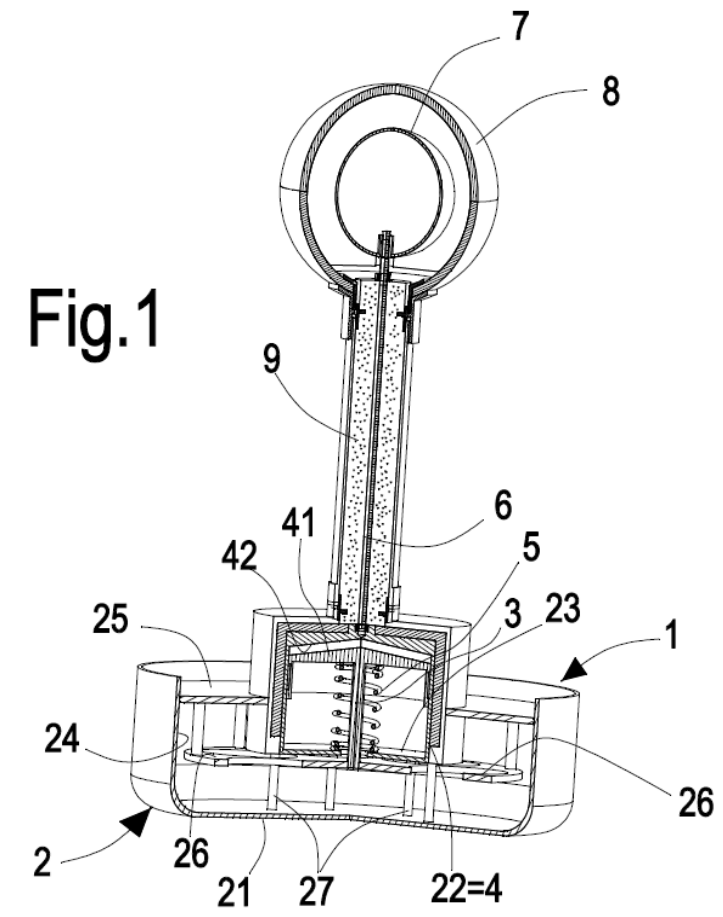
The invention



The research efforts were focused on the development of submarine buoys and devices including so-called "gliders", submarine or underwater sailplanes categorized as autonomous submarine vehicles - AUV. The gliders can be equipped or associated with appropriate instrumentation that allow independent monitor and detection in the environment. In the context of research, the focus was the development of systems able to vary the waterline of these devices. The main goal of this invention is to provide a device for sampling and measuring at different depths. The device is structurally simple and economic, fully autonomous, with predictable control and without limitations.

The invention allows therefore to move in the superficial water in a completely passive way. The propulsion is made by only solar energy. No mechanical or electronic component are required for external control, neither battery pack.

Images



Industrial Use



The technology is applicable in the fields of sampling and measuring on marine environment.

Future
application



The research group is interested in industrial collaborations to increase the TRL of this invention or industrial partners interested in licensing the technology covered by this patent.

For more information:



Scuola Superiore Sant'Anna – Technology Transfer Office

Headquarters: Piazza Martiri della Libertà 33, 56127, Pisa

Web site: www.santannapisa.it

E-mail: uvr@santannapisa.it

For more information:



Ufficio Regionale di Trasferimento Tecnologico

Headquarters: Via Luigi Carlo Farini, 8 50121 Firenze (FI)

E-mail: urtt@regione.toscana.it

