

ABSTRACT

**SYSTEM FOR DETECTING AND LOCATING SUBMERGED OBJECTS
HAVING NEUTRAL BUOYANCY SUCH AS MOORED MINES AND
ASSOCIATED METHOD**

A system for detecting and locating submerged underwater objects having neutral buoyancy comprising at least one mechanically steered sonar (2) intended to image the water column, the system comprising at least one mechanically steered sonar (2) with a single emission channel, making it possible to perform the insonification of a first individual sector (SE1) in a first pointing direction (PA1) by means of a single first acoustic pulse, said sonar (2) forming a single reception channel suitable for acquiring a first acoustic signal resulting from said insonification, the mechanically steered sonar (2) being mounted on a carrier (1) intended to advance in a main direction (D), such that the first pointing direction (PA1) is substantially lateral to the carrier (1) and that the first individual sector (SE1) exhibits a wide relative bearing aperture and a narrow elevation aperture, the mechanically steered sonar (2) comprising a mechanical pointing device intended to tilt the first pointing direction (PA1) about an axis of rotation substantially parallel to the main direction allowing the sonar to acquire first acoustic signals resulting from insonifications performed in different pointing directions.

Fig 3