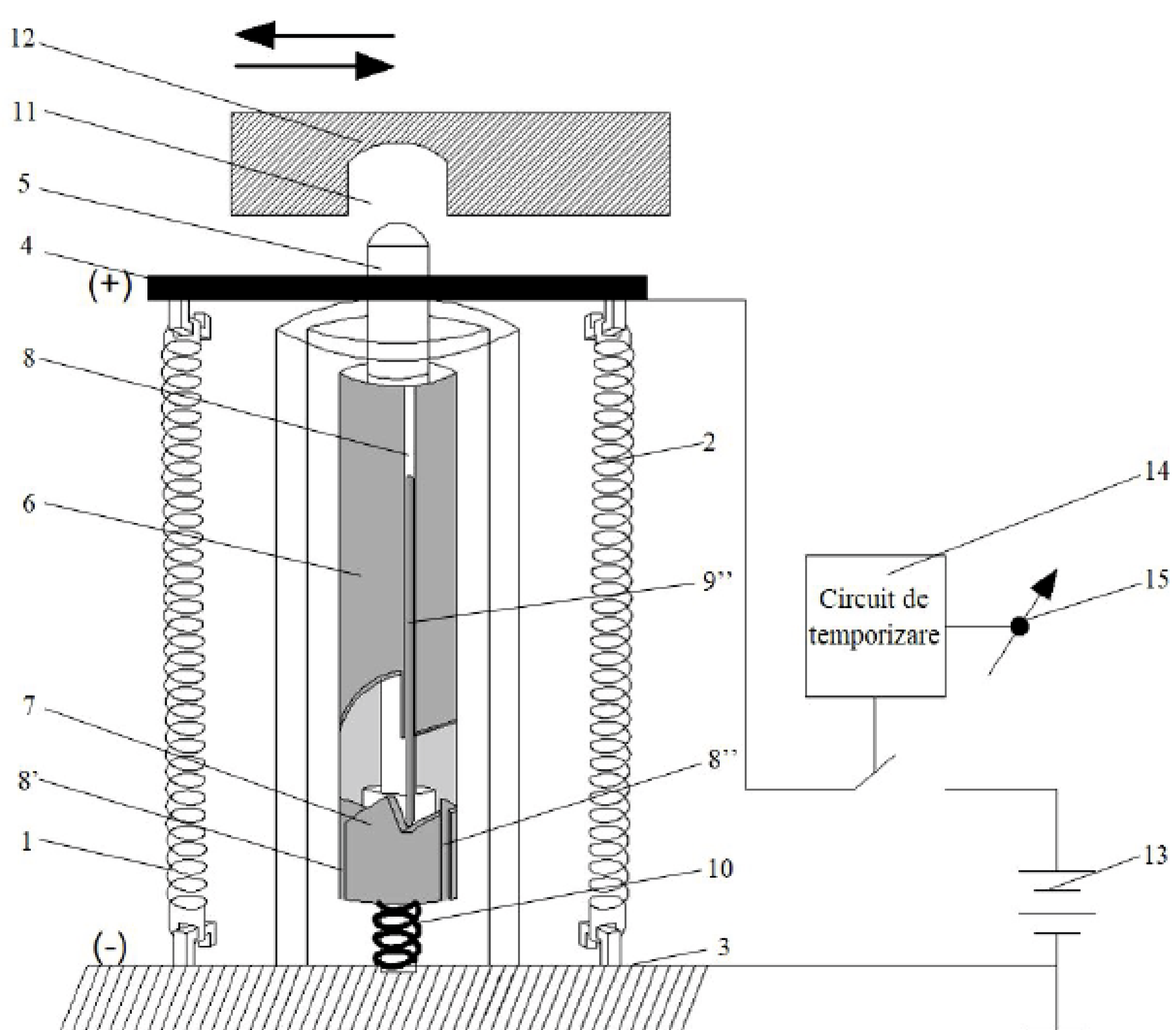
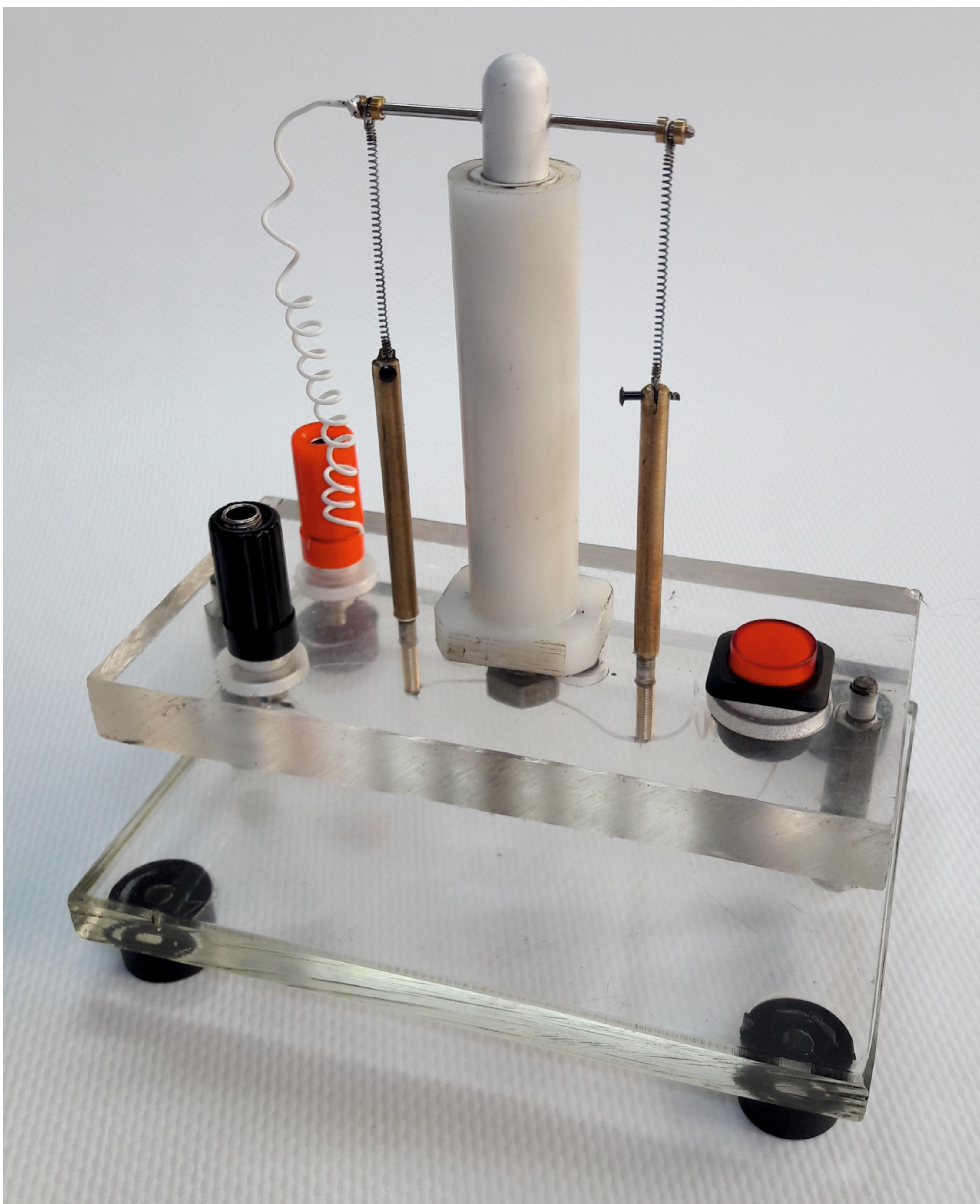


INTERLOCKING SYSTEM

NIȚAN Ilie, MILICI Laurențiu-Dan, POIENAR Mihaela,
CERNUȘCĂ Dumitru, PAȚĂ Sergiu Dan, PIANÎH Alexei,
PENTIUC Radu Dumitru, POPA Cezar Dumitru,
RAȚĂ Mihai, UNGUREANU Constantin
European Patent no. EP 3536880

The invention relates to an interlocking system made on the basis of two elastic elements of Nitinol, intended to lock doors, shutters, in order to assure constructions or installations. According to the invention, the interlocking system consists essentially of two springs of Nitinol (1) and (2) attached to one end of the fixed plate (3), and at the other end of the movable plate (4) with the interlocking element (5), whose bi-directional displacement obtained by heating the springs, controls the position of two cams (6) and (7) by means of guiding canals (8), (8'), (8'') on the grooves (9), (9'), (9'') and leads to the locking or unlocking of the mobile element (12).



INTERLOCKING SYSTEM - laboratory prototype -
1, 2- Nitinol springs; 3 - fixed plate; 4 - movable plate;
5 - interlocking element; 6, 7 - cams; 8, 8', 8'' - guiding canals;
9, 9', 9'' - grooves; 10 - spring; 11 - canal;
12 - mobile interlocking element;
13 - DC power source; 14 -adjustable timing circuit.

Applications: interlocking system for automotive industry, aeronautics industry, security systems.