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(71) Applicant: **HALLIBURTON ENERGY SERVICES, INC.** [US/US]; 3000 N. Sam Houston Parkway E., Houston, Texas 77032-3219 (US).

(72) Inventor: **EL MALLAWANY, Ibrahim**; Jubail Highway Abu Hadria Exit, Al-Khobar, 31952 (SA).

(74) Agent: **PARKER, Greg H.** et al.; 14241 Dallas Parkway, Suite 620, Dallas, Texas 75254 (US).

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(54) **Title:** A SUBSURFACE SAFETY VALVE INCLUDING AN ELECTROPERMANENT MAGNET AND TARGET

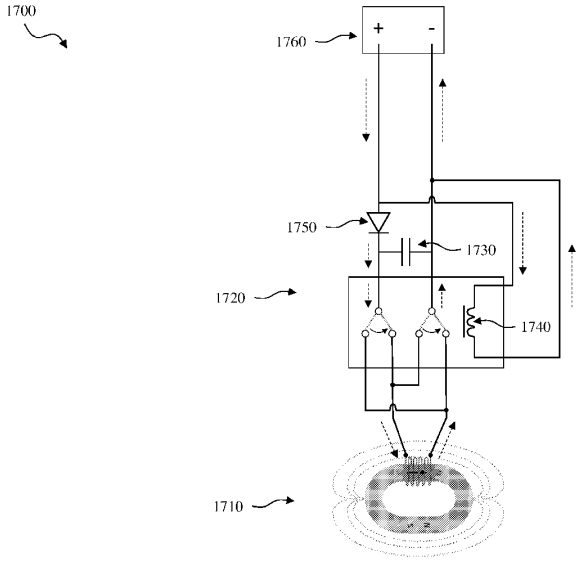

FIG. 17A

(57) **Abstract:** Provided is a magnet for use with an SSSV, an SSSV, a well system, and a method. The magnet, in one aspect, includes an electropermanent magnet. The magnet, in accordance with this aspect, further includes a self-powered protection circuit coupled to the electropermanent magnet, the self-powered protection circuit configured to switch the electropermanent magnet to the OFF state when the SSSV loses power.

[Continued on next page]

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