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- (71) **Applicant:** **W. L. GORE & ASSOCIATES, INC.**
[US/US]; 555 Paper Mill Road, Newark, Delaware 19711 (US).
- (72) **Inventors:** **CULLY, Edward H.**; 551 Paper Mill Road, Newark, Minnesota 19711 (US). **HARDIE, William G.**; 551 Paper Mill Road, Newark, Delaware 19711 (US).
- (74) **Agent:** **JONAS, Victor P.** et al.; 2200 Wells Fargo Center, 90 South Seventh Street, Minneapolis, Minnesota 55402-3901 (US).

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(54) **Title:** INJECTOR DEVICE COMPONENT SURFACE MODIFICATION

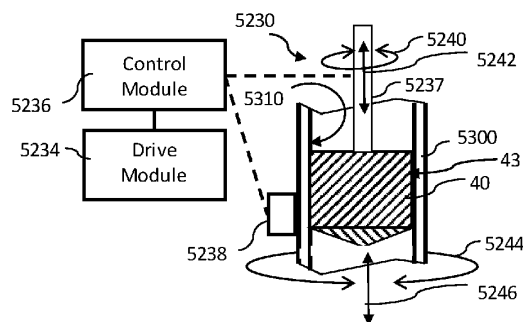


FIG. 15A

(57) **Abstract:** Methods for manufacturing injector devices, including positioning a stopper of the injector device in a tubular member such that an outer side of the stopper is engaged with an inner surface of the tubular member and modifying the outer side of a stopper by causing relative motion between the stopper and the tubular member, the relative motion including one or both of rotational motion and vibrational motion.

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