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**Tekulve**

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(54) **CLOT REMOVAL SYSTEM AND METHOD**

2025/109; A61M 25/1011; A61M 25/1004;  
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See application file for complete search history.

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 708 days.

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(58) **Field of Classification Search**

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(57) **ABSTRACT**

A clot removal system includes first and second barriers that each have an expanded configuration forming an occlusion within a vessel and a collapsed configuration. At least one deployment device distally deploys the first barrier relative to a clot, and proximally deploys the second barrier relative to the clot. The at least one deployment device also delivers a thrombolytic agent into an isolated segment defined at least in part by the first and second barriers in the expanded configurations, and positions an impeller within the isolated segment. The impeller includes a substantially cylindrical hub having at least two impeller blades attached to rotate with the cylindrical hub. Each of the at least two impeller blades has a proximal end attached to the cylindrical hub and a distal end attached to the cylindrical hub. The impeller has a transport configuration in which the at least two impeller blades are moved toward the cylindrical hub and a deployed configuration in which the at least two impeller blades are moved away from the cylindrical hub.

**17 Claims, 5 Drawing Sheets**

