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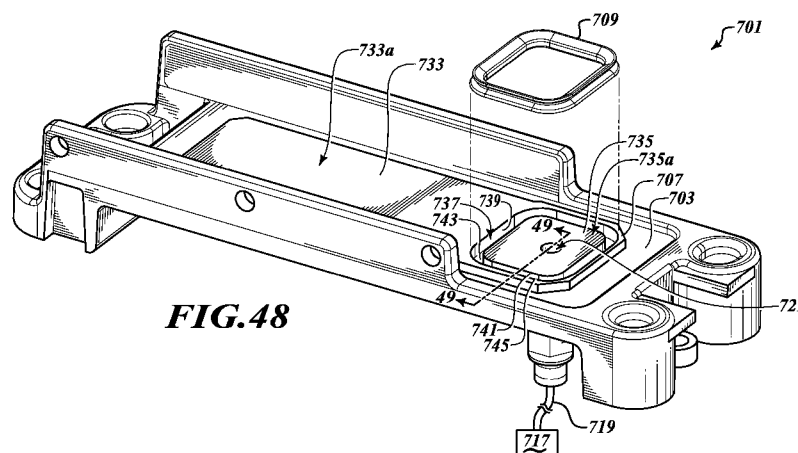
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**FIG. 48**

(57) Abstract: At least some embodiments of the technology are directed to an automated slide processing apparatus configured to apply at least one reagent to a specimen carried by a microscope slide. The slide processing station can include a support element with a support surface, at least one vacuum port, and a sealing member having a non-round shape. In an uncompressed state, the sealing member can extend upwardly beyond the support surface. In a compressed state, the sealing member can be configured to maintain an airtight seal with a backside of the microscope slide as the microscope slide is pulled against the support surface by a vacuum drawn via the at least one vacuum port.