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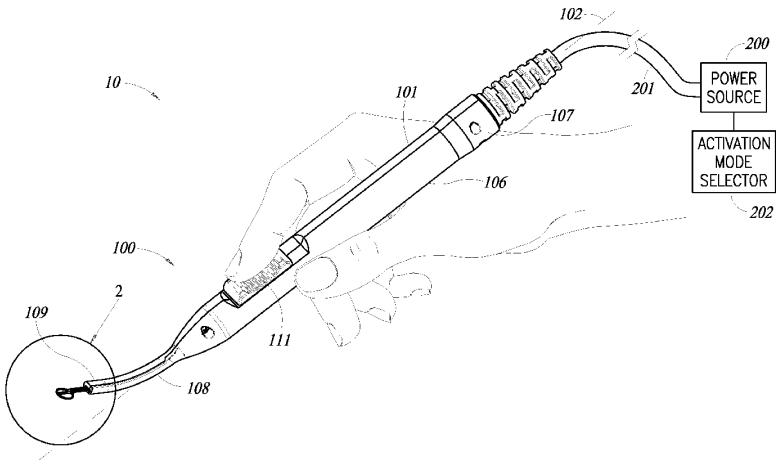

FIG. 1

(57) Abstract: Provided is an ophthalmic surgical apparatus configured for performing an automated capsulotomy or a comparable surgical procedure on a recipient eye's Descemet membrane hereinafter coined a descemetomy. The ophthalmic surgical apparatus includes an ophthalmic surgical handpiece supporting a compact cutting head which can be inserted through a 2.4 mm or less corneal incision into an eye's anterior chamber and manipulated inside the eye's anterior chamber for performing automated centered circular incisions on interior eye tissue. The ophthalmic surgical apparatus also includes a clinical practitioner operated power source for controlled activation of the ophthalmic surgical handpiece's cutting head. The power source typically has two or more activation modes for controlled activation of an ophthalmic surgical handpiece's cutting head in terms of electrical power rating, activation duration, and the like.

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