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(54) **Title:** SWAPPER FOR A CLUSTER TOOL

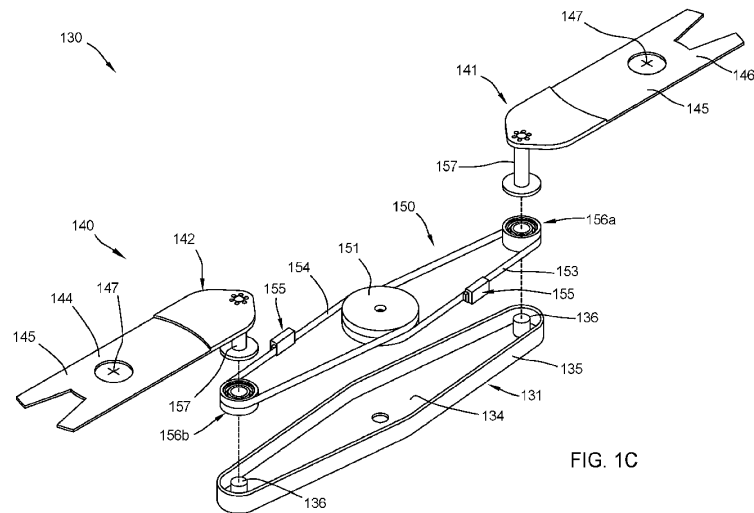


FIG. 1C

(57) **Abstract:** In one embodiment, a swapper for a cluster tool includes: a base, a pulley system, and first and second arms. The base may include an interior chamber. The base may be rotatable about a central axis. The pulley system may be at least partially disposed in the interior chamber. The pulley system may include a multi-level central pulley, first and second elbow pulleys, and first and second belts. The base may be rotatable relative to the multi-level central pulley. The first and second elbow pulleys may be rotatable about respective first and second elbow axes. Each belt may loop around a respective level of the multi-level central pulley and the corresponding elbow pulley. Each arm may be rotationally coupled to the respective elbow pulley such that rotation of the elbow pulley rotates the arm about the corresponding elbow axis.

[Continued on next page]

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