

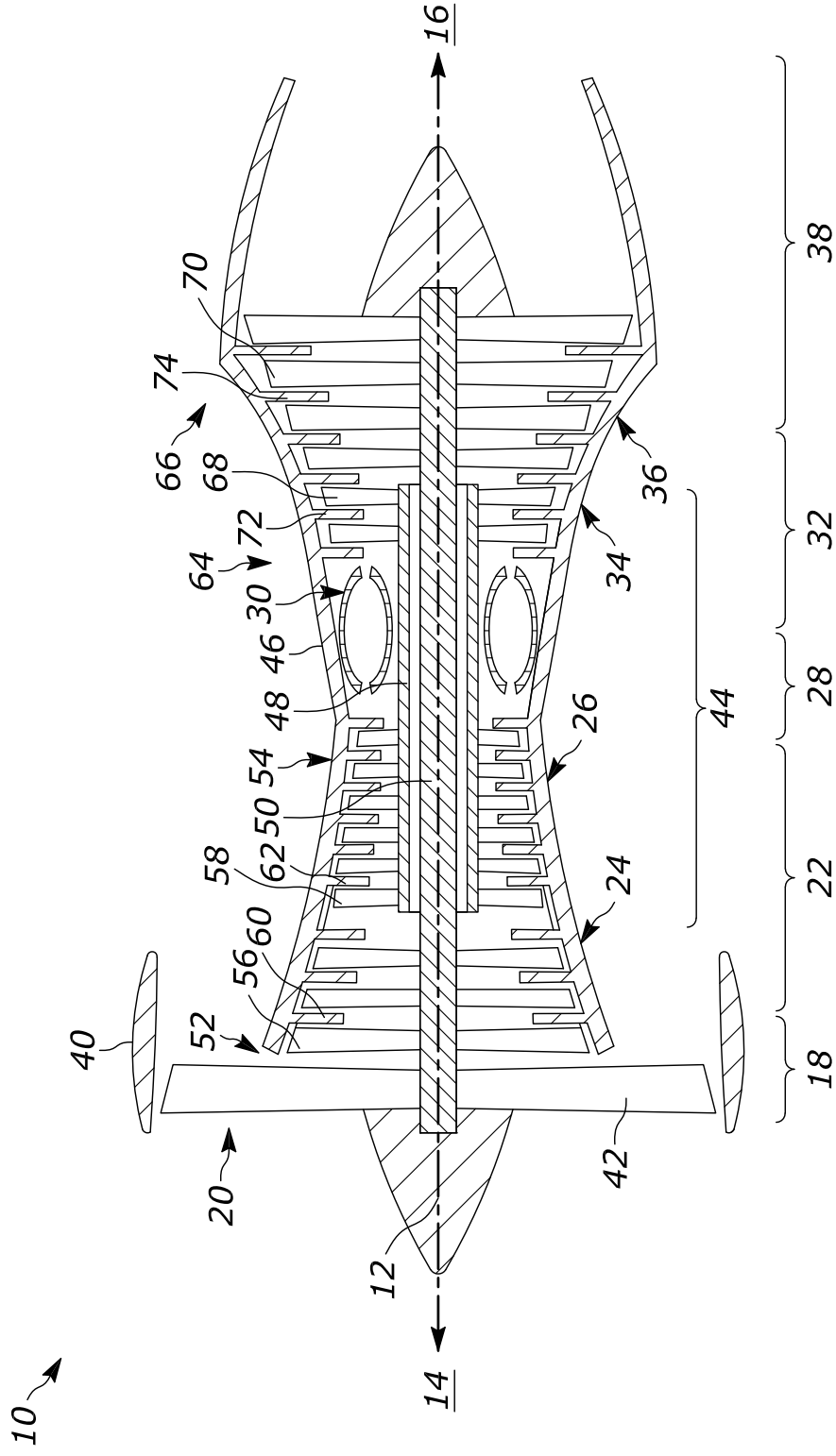


FIG. 1

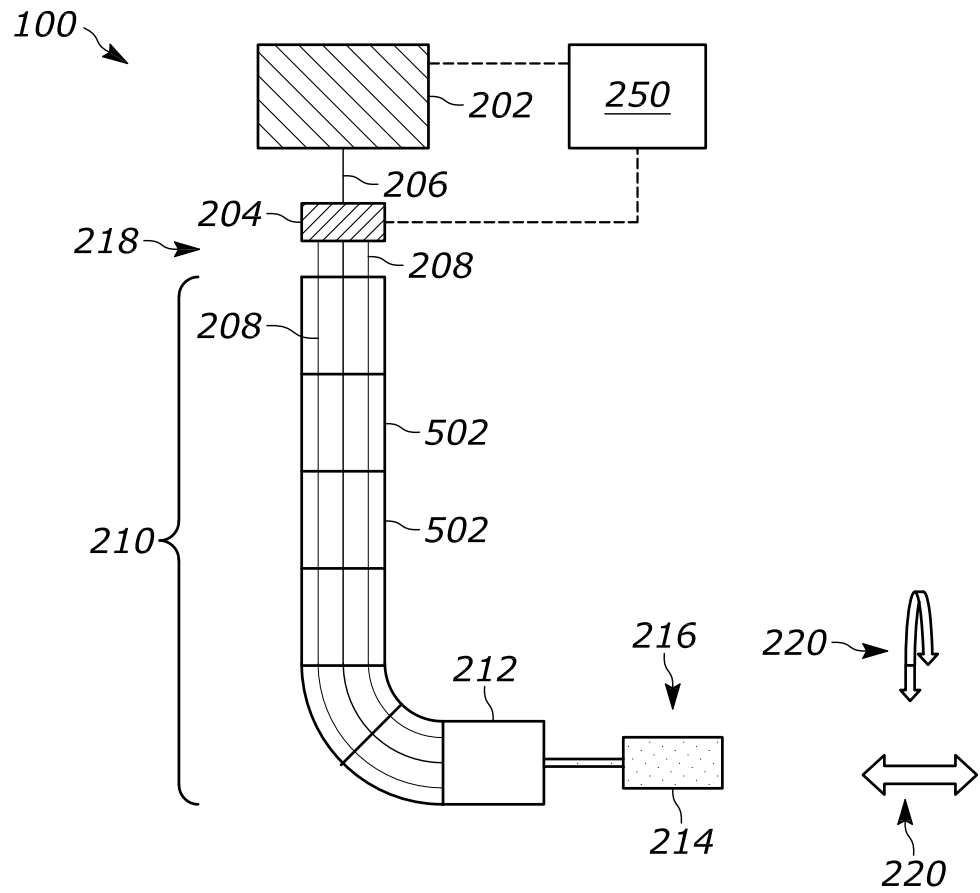


FIG. 2

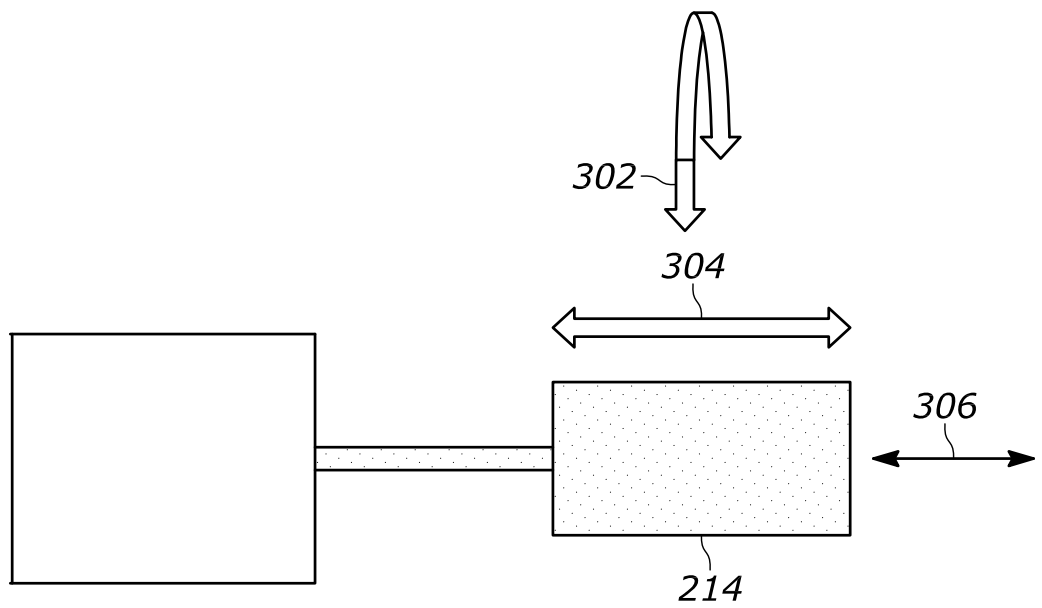


FIG. 3

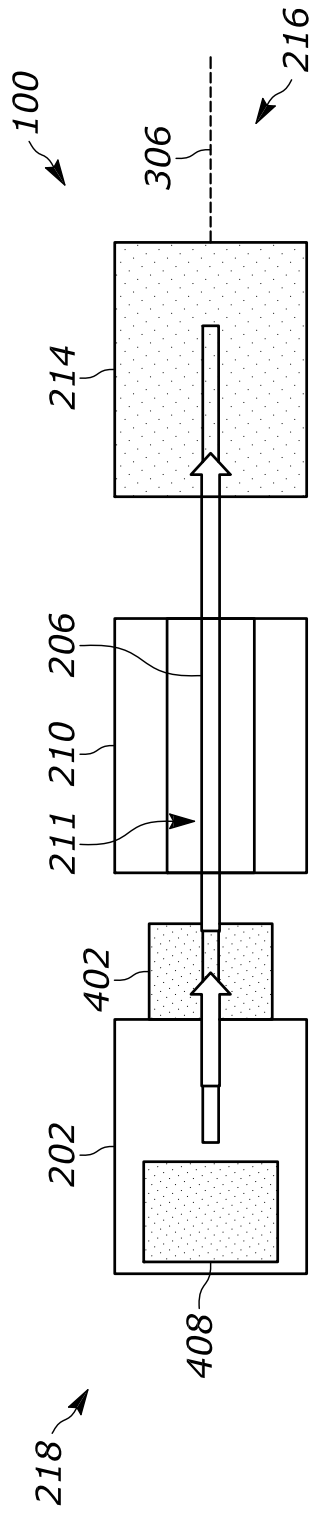


FIG. 4A

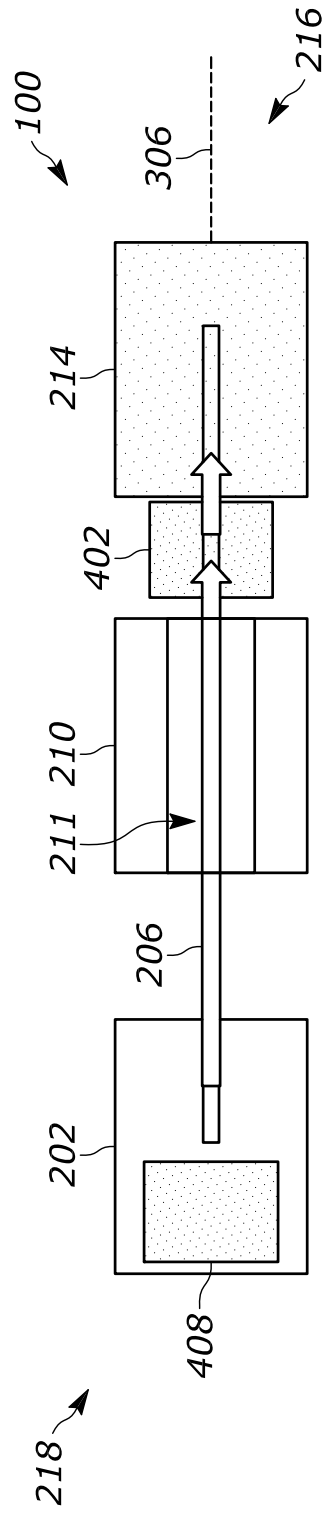


FIG. 4B

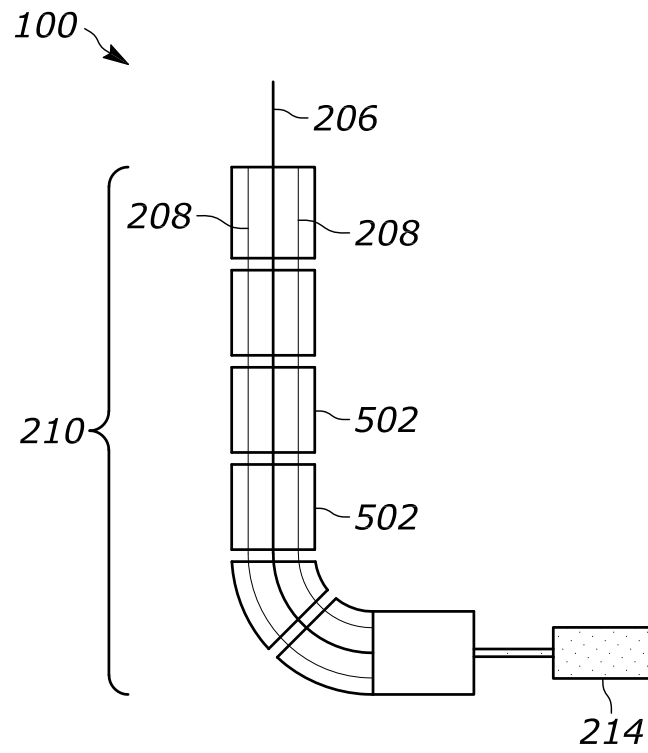


FIG. 5

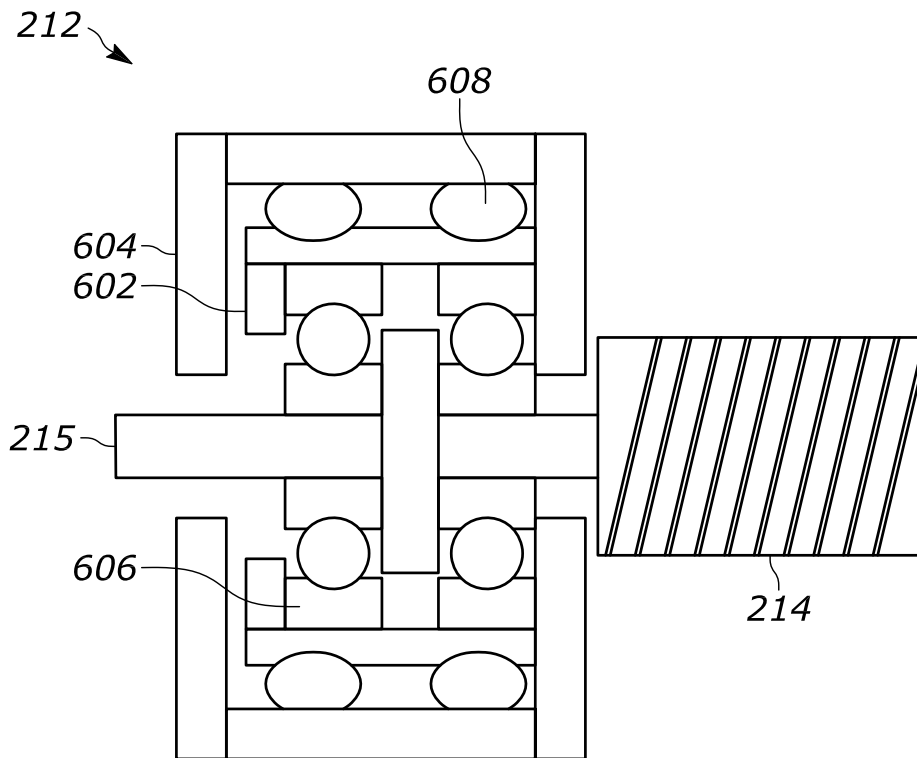


FIG. 6

Mechanical Impedance: $Z = \frac{F}{V} = j\omega M + C - \frac{jK}{\omega}$

Effective Tool Impedance: $Z_{\text{eff}} = \sum_{i=1}^{N_{\text{rope}}} Z_{\text{rope}} + \frac{1}{\underbrace{\sum_{i=1}^{N_{\text{cell}}} \frac{1}{Z_{\text{cell}} + f(Z_{\text{rope}})}}_{\text{Ropes \& Unit Cell Assembly In Parallel}}}$

Unit Cells In Series

Cell Assembly Stiffness Is A Function Of Rope Tension

FIG. 7A

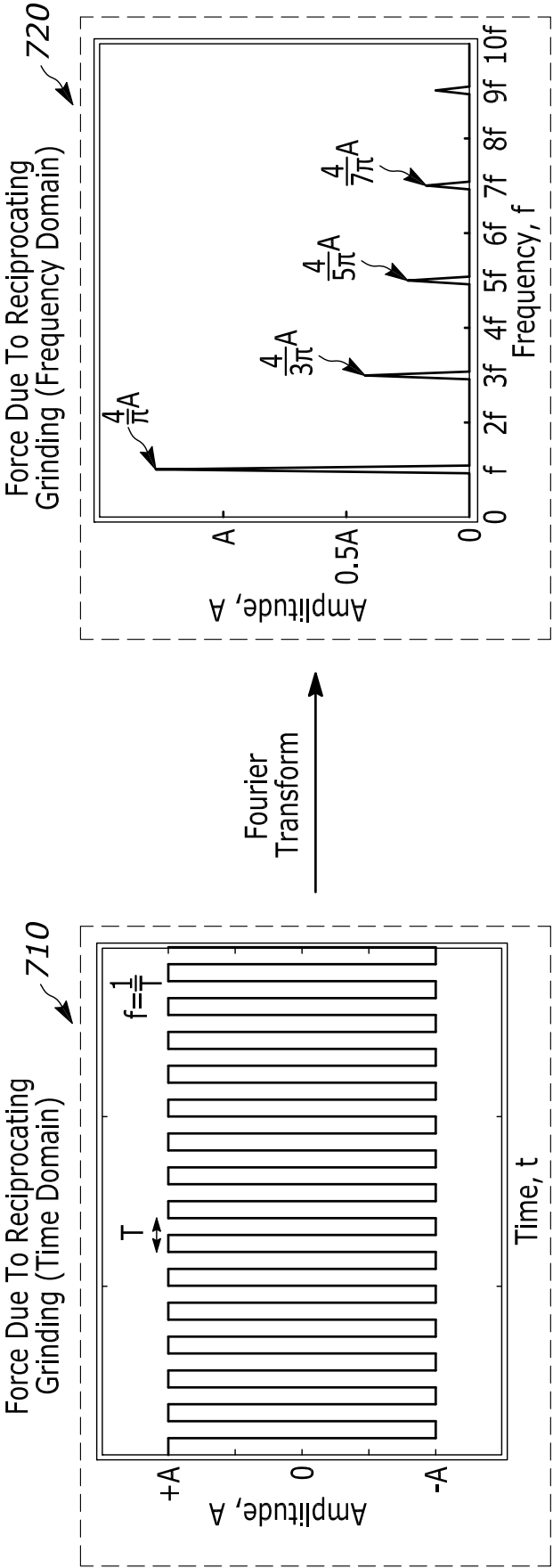


FIG. 7B

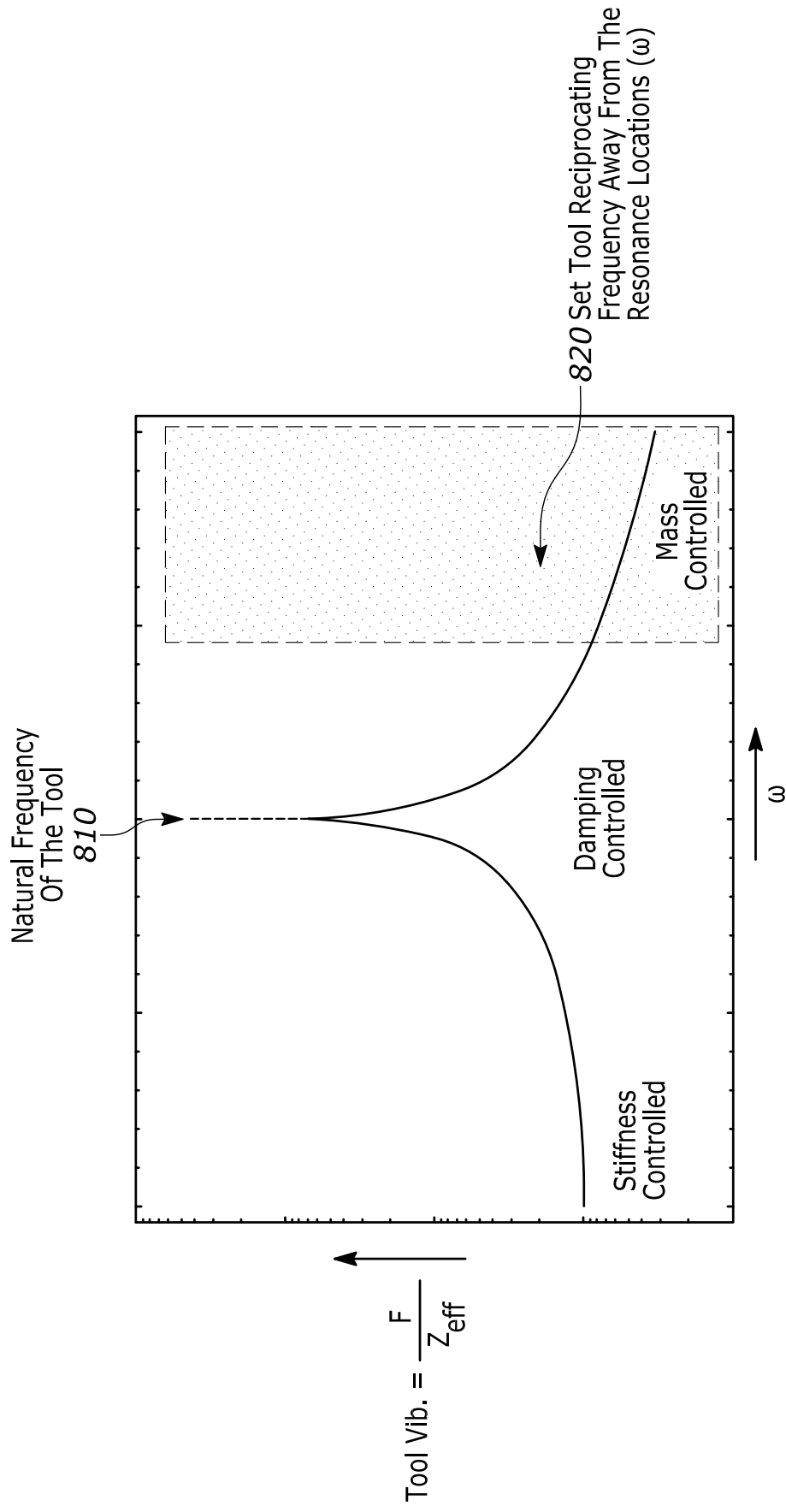


FIG. 8

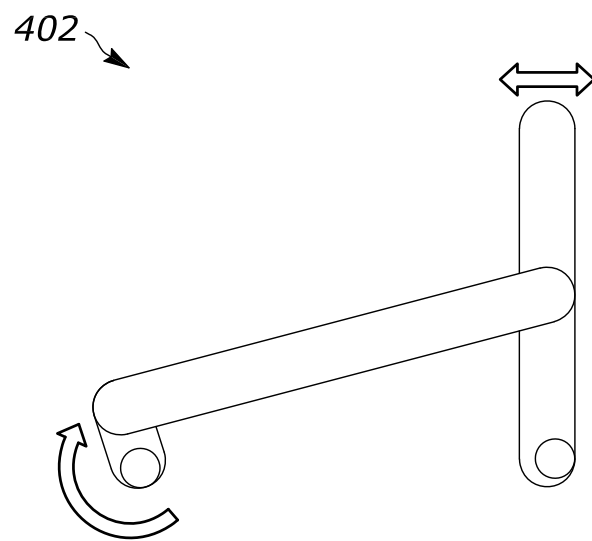


FIG. 9A

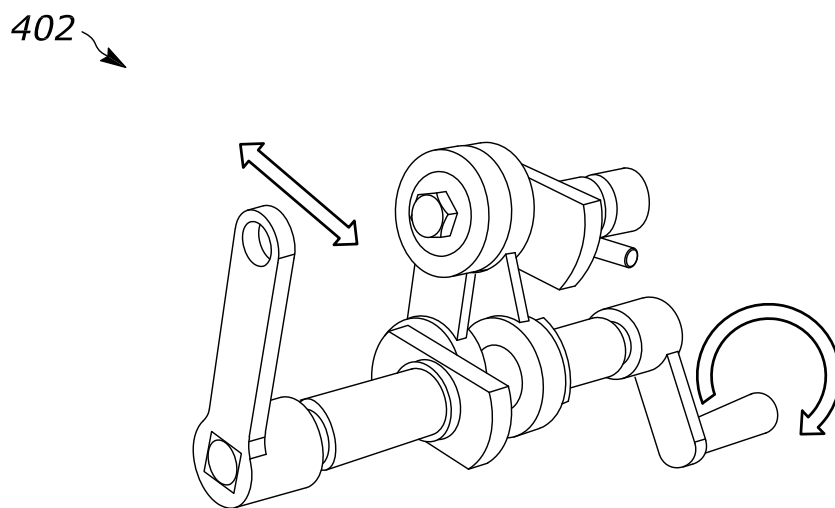
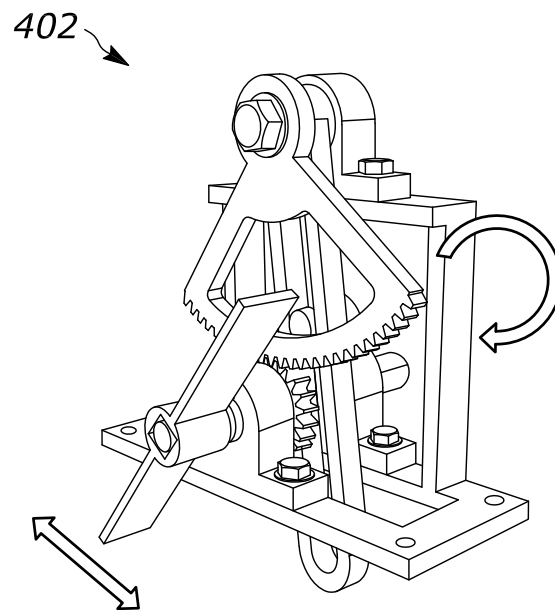
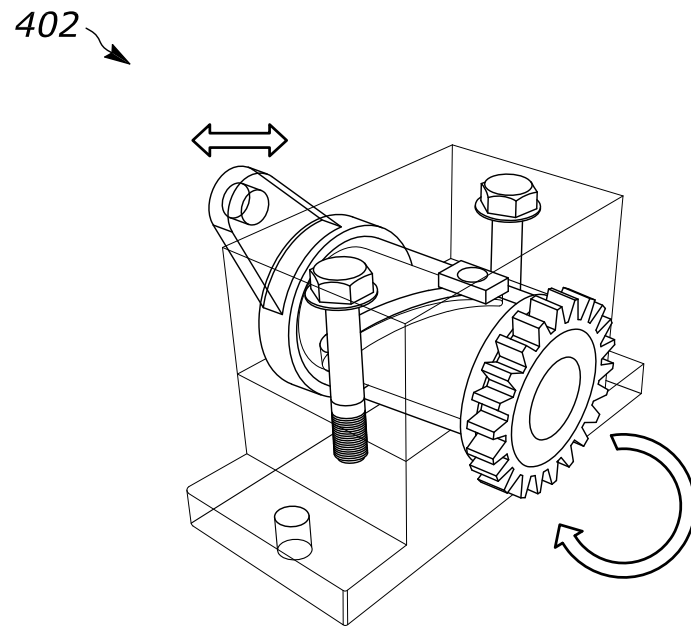


FIG. 9B



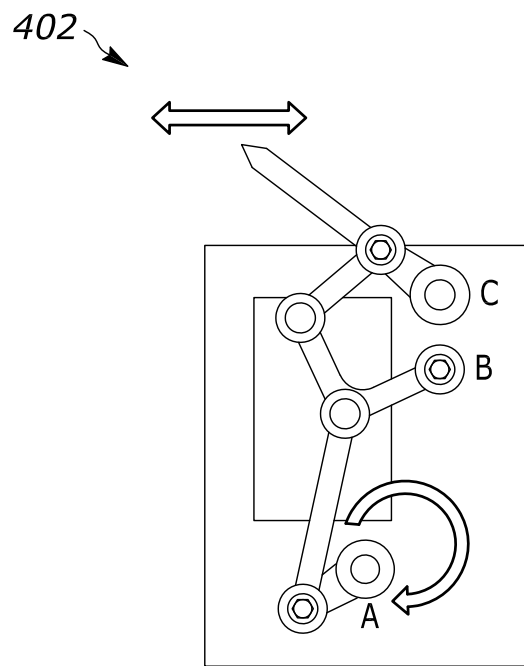


FIG. 9E

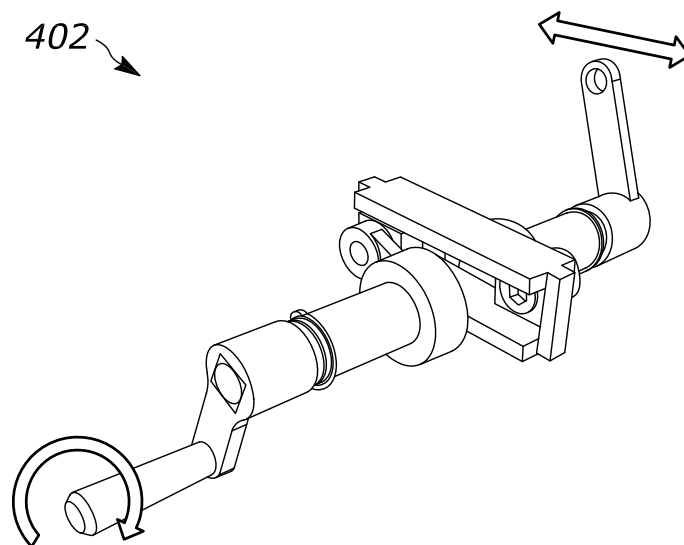


FIG. 9F

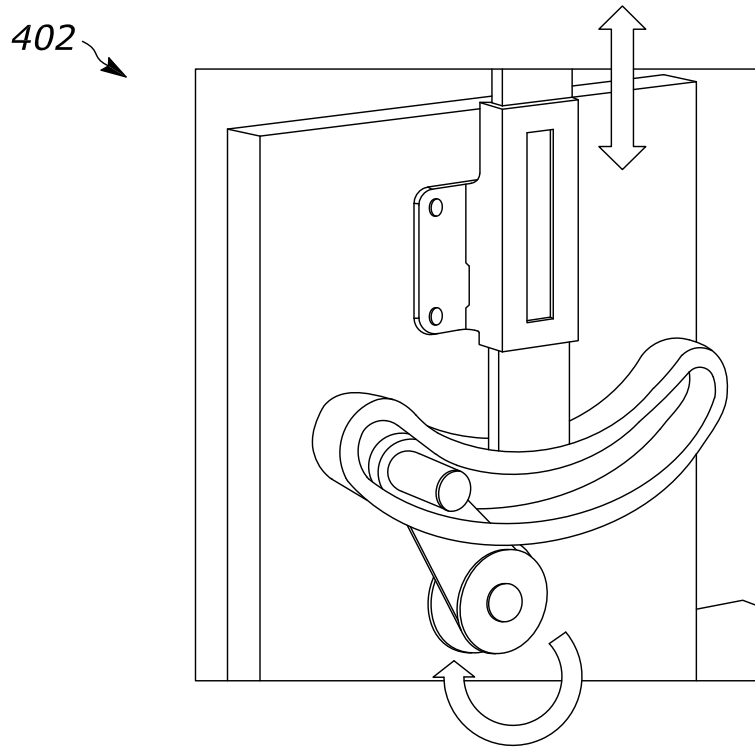


FIG. 10A

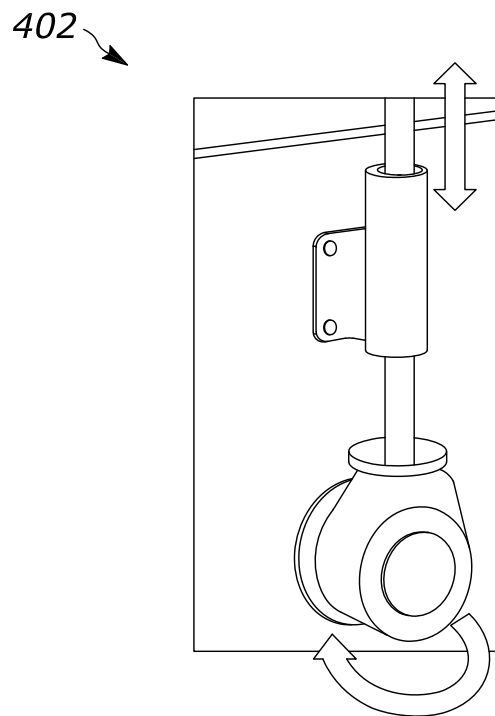


FIG. 10B

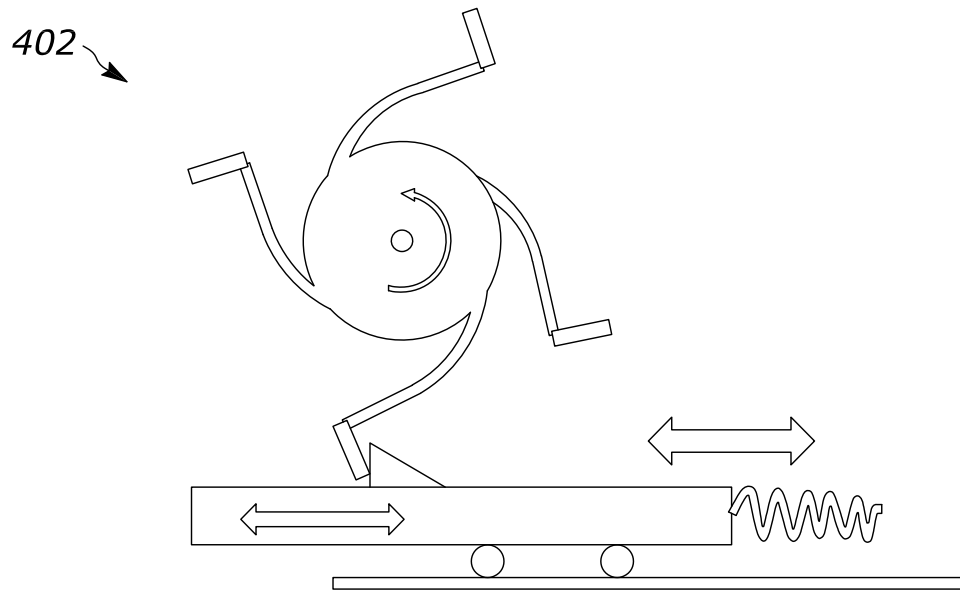


FIG. 10C

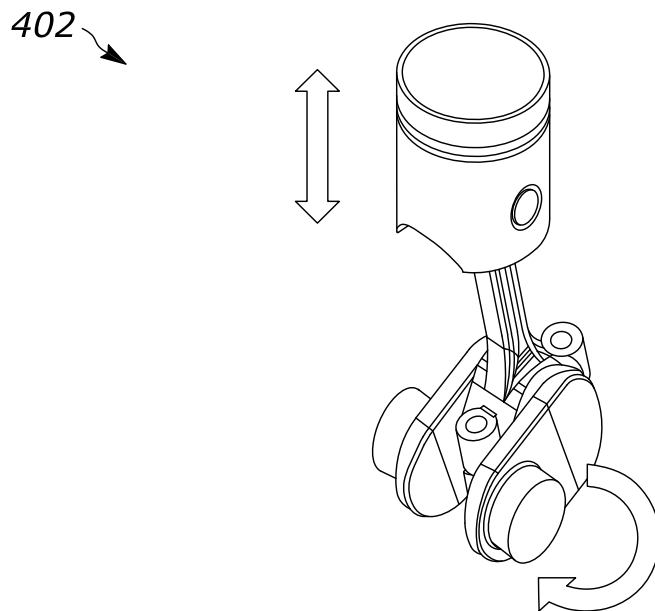


FIG. 10D

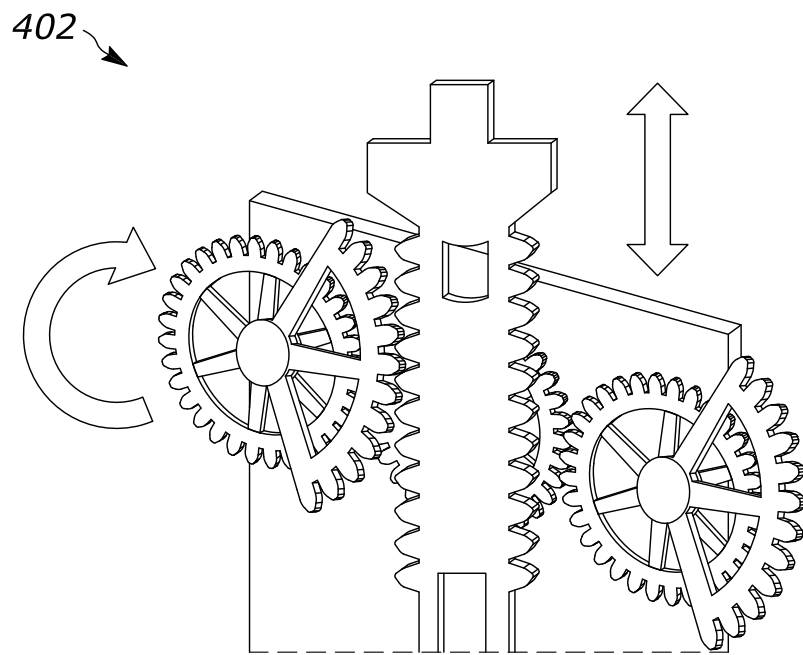


FIG. 10E

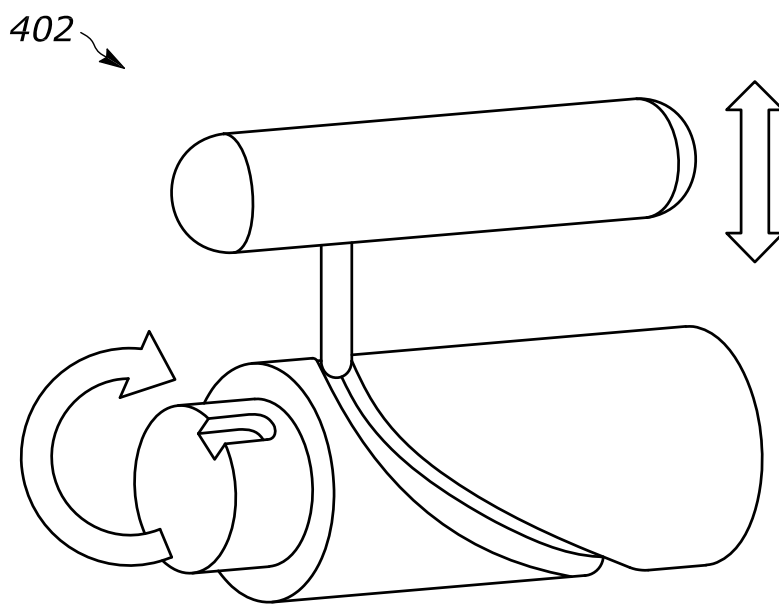


FIG. 10F

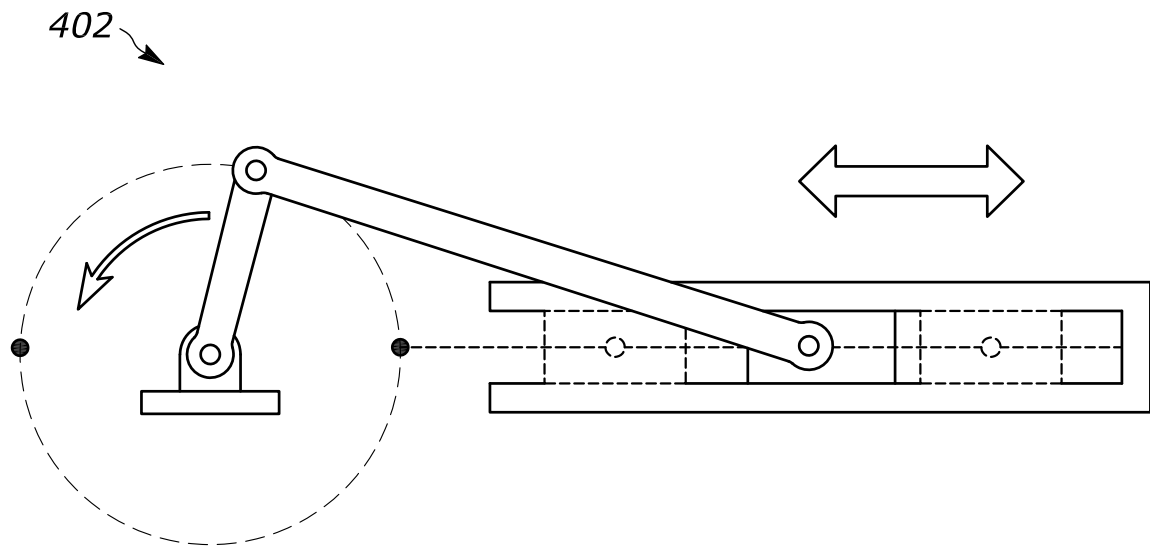


FIG. 10G

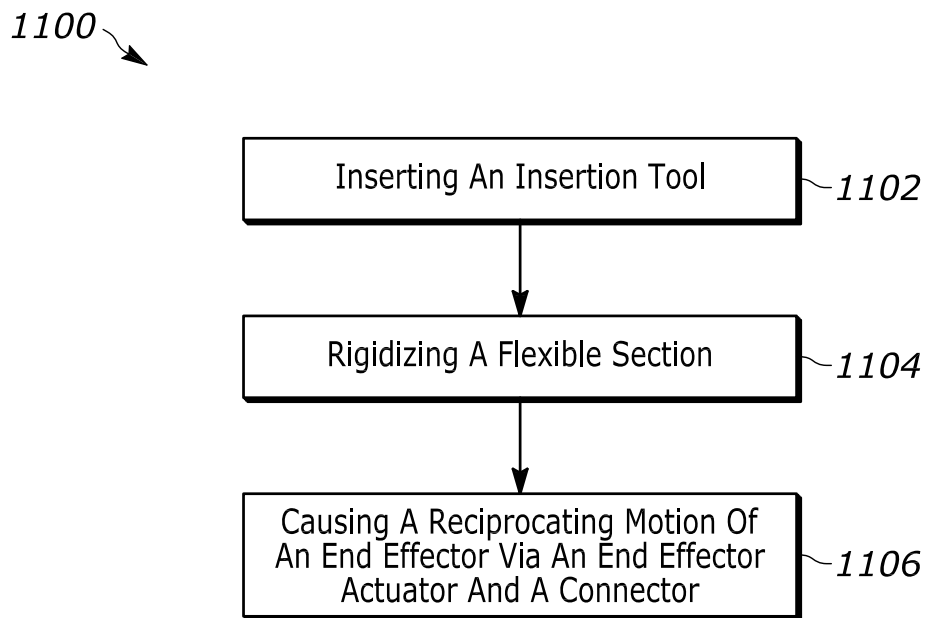


FIG. 11