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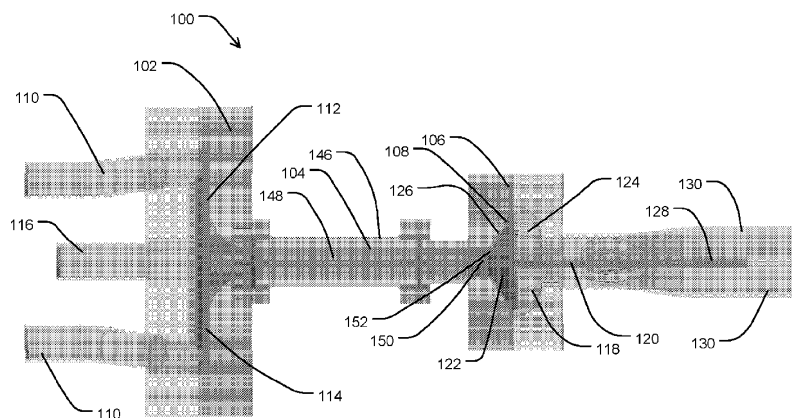


FIG. 2

(57) Abstract: A separator includes an inlet manifold, a throat, and an outlet manifold. The inlet manifold is configured to receive a flow of the mixture of gas. The throat is attached to the inlet manifold. The throat separates heavier species of the mixture of gas from lighter species of the mixture of gas. The outlet manifold is attached to the throat. The outlet manifold includes an outlet valve and a throttle shaft. The outlet valve includes a cone-shaped inlet and a bowl-shaped outlet. The throttle shaft includes a shaft and a cone-shaped head. The cone-shaped head is positioned within the cone-shaped inlet and the shaft extends through the bowl-shaped outlet. The bowl-shaped outlet, the cone-shaped inlet, and the cone-shaped head are sized and shaped to control the flow of the heavier species through the outlet valve and the flow of the mixture of gas through the separator.

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