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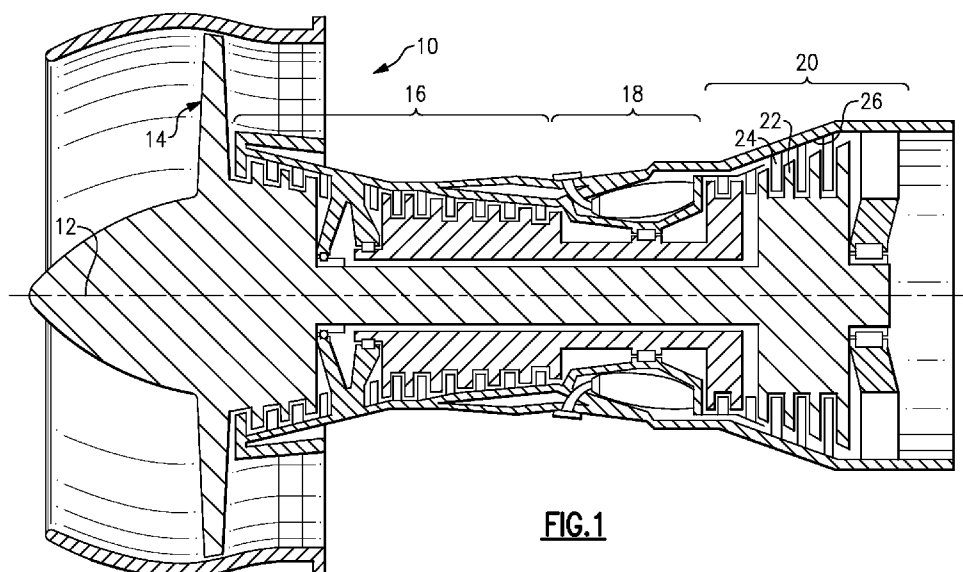


FIG.1

(57) Abstract: A protective coating system includes a coating having a composition that includes about 5-40 wt% of chromium, of about 5-35 wt% of aluminum, about 0.1-9 wt% of at least one of silicon, hafnium, or magnesium, about 0.05-2 wt% of a Group IIIB Periodic Table element, a non-zero amount less than 13 wt% of at least one noble metal selected from platinum, palladium, and gold, and a balance including nickel, cobalt or iron.

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