

Kenneth W. Cowans patents

Hughes Aircraft Company (HAC) 1957-1968

1. US3188830__Temp Oscillation filter
2. US3229470__Vortex Nozzle for Joule -Thomson cryostat
3. US3233426__Claude engine cryostat
4. US3282064__Stirling Configuration
5. US3306075__Thermal coupling for Solvay engine cryostat
6. US3302417__Cryogenic coupling to load
7. US3315478__Infrared (IR) detector w/liquid nitrogen transfer
8. US3315490__Mark III Solvay engine cryostat
9. US3334491__Phoenix system configuration
10. US3379026__Villeumier Engine Refrigerator
11. US3394542__Hot Villeumier Displacer
12. US3413802__Hot Villeumier Regenerator
13. US3423948__Stirling configuration
14. US3469409__Villeumier w/isotope power
15. US3608629__Compensated counter-current heat exchanger
16. US3825063__Screen heat exchanger

Started Cryogenic Department at HAC

Wrote book in 1961 "*Heat Transfer and The Stirling Engine*" to teach engineers for staffing Cryogenic Department