Answer on Question 42744, Physics, Molecular Physics | Thermodynamics

Before doing n strokes, the parameters of the system were P, V . After doing n strokes, parameters became $V - nV', P_1$, where P_1 is unknown.
Let us use ideal gas equation $PV = \nu RT$. Since the temperature is constant, $PV = const$.
Thus, $PV = P_1(V - nV')$, from where $P_1 = \frac{PV}{V - nV'}$ - this is the final pressure after n-stroke.