Claim:

$$\{a^4, a^9, a^{16}, a^{25}, ...\}^* = \{a^{i^2} : i \in \mathbb{N} - \{1\}\}^*$$

$$= \emptyset^* \cup a^4 \cup a^8 \cup a^9 \cup a^{12} \cup a^{13} \cup a^{16} \cup a^{17} \cup a^{18} \cup a^{20} \cup a^{21} \cup a^{22} \cup a^{24}a^*$$

Proof: It suffices to prove $\forall n \geq 24, \exists p, q \geq 0$, s.t. $n = 4p + 9q$. We divide into 4 cases:

1. $n = 4m$, then $p = m, q = 0$
2. $n = 4m + 1$, then $p = m - 2, q = 1$
3. $n = 4m + 2$, then $p = m - 4, q = 2$
4. $n = 4m + 3$, then $p = m - 6, q = 3$. Note that $m \geq 6$, so $p \geq 0$.