assertions 1, 2' and 3. For assertion 1, note that for C smooth, the divisor V_C is irreducible: to see this, let

$$I' \subset V_C \times C$$

be the incidence correspondence given by

$$I' = \{ (C_0, p) : C_0 \text{ is tangent to } C \text{ at } p \}.$$

Since C is irreducible and the fibers of the projection map

$$\pi_2 : I' \longrightarrow C$$

are linear subspaces of W, I' is irreducible.

Γ $\pi_2^{-1}(p) \ni C_1, C_2 \Rightarrow C_1$ & C_2 are tangent to C at $p \Rightarrow aC_1 + bC_2$ is tangent to C at p.
$\Rightarrow \pi_2^{-1}(p)$ is a linear subspace of W, and is irreducible $\Rightarrow I'$ is irreducible.

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This implies that V_C is irreducible.

Γ $\pi_1 : I' \longrightarrow V_C$. $\Rightarrow$ If V_C is reducible, then I' is reducible, since π_1 is onto. This contradicts to the result above. Refer to P736 ~ P739

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Now let $U \subset W$ be the open set of smooth conics and denote by I the incidence correspondence