ctive over $S-R$, with $\pi^{-1}(p) = X_p \cong \mathbb{P}^1$ for $p \in R$.

⊩ $\pi : \Sigma \longrightarrow S$

For $^\forall p \in S-R$, $\exists$ a unique singular line through p. $\Rightarrow$ $\exists$ a unique $x \in \Sigma$ s.t $\pi(x) = p$. This implies that π is one to one and onto $S-R$.
For $p \in R$, any line l_x of X through p is singular.
$\Rightarrow$ $\sigma(p) \cap X = X_p = \pi^{-1}(p) = \sigma(p, h) \cong \mathbb{P}^1$.

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Σ is easy to describe, once we have the following characterization.

Lemma. For $x \in X$,

$$x \in \Sigma \Leftrightarrow T_x(F) \text{ is tangent to } G.$$

Proof. Say $T_x(F)$ is tangent to G at x'. Then $x \in T_{x'}(G)$, and so l_x meets $l_{x'}$ at a point $p \in \mathbb{P}^3$.

⊩ $T_x(F) \subset T_{x'}(G) \Rightarrow x \in T_{x'}(G) \Rightarrow x \in T_{x'}(G) \cap G = \sigma(l_{x'}) \Rightarrow l_x \cap l_{x'} \neq \phi$. See p 757

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The plane $\sigma(p)$ is then contained in $T_{x'}(G) = T_x(F)$, i.e., is tangent to F at x; thus $x \in \Sigma$.