Recall that the α-planes $\{\sigma(p)\}_{p\in l_x}$ lying in $T_x(G)\cap G$ are spanned by x together with the lines of one of the rulings of Q, while the planes $\{\sigma(h)\}_{h\supset l_x}$ are spanned by x and the lines of the other ruling of Q.

「 Q is a smooth quadric in $\mathbb{P}^3$ $\Rightarrow$ Q has two families of lines. $\Rightarrow$ See P758 ~ P759 for the rest.
」

Now if $T_x(F)$ is tangent to G at some point y, we may take $y\in H$, so that the locus $T_x(F)\cap T_x(G)\cap G$ consists of the two α-planes $\sigma(p)$ and $\sigma(h)$ spanned by x and the two lines of intersection $Q\cap T_x(F)$. (See Figure 15.)

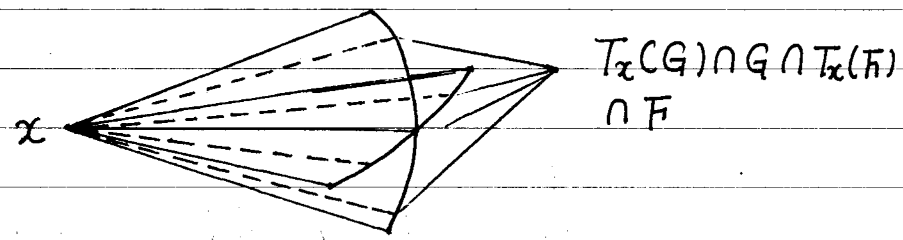

Figure 15. $T_x(G)\cap G\cap T_x(F)$ if $x\in Z$.

「 Since $x\neq y$, we may choose a hyperplane $H\ni y$. $\Rightarrow$ $Q = T_x(G)\cap G\cap H$ is a smooth quadric in $\mathbb{P}^3$ $\Rightarrow$ $Q\cap T_x(F) = Q\cap T_y(G)$ is a singular quadric in $\mathbb{P}^2$, which is the union of two lines (distinct). Clearly, $\sigma(p), \sigma(h) \subset T_x(F)\cap$