

We can now identify the line bundles j^*H and j'^*H associated to the maps j and j' . To begin with, we note that for any hyperplane $h \subset \mathbb{P}^3$, the inverse image j^*h in A is just the set of pencils $L \in A$ with focus lying on the hyperplane section $h \cap S'$ of S .

$$\Gamma \quad j: A \longrightarrow S \subset \mathbb{P}^3$$

$$j^*h \ni L \Rightarrow j(L) \in S \cap h \quad j(L) = P_L \in S \cap h$$

See P 779

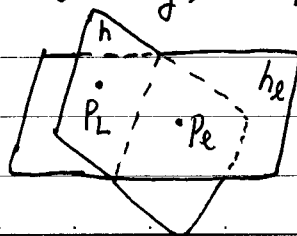
\Rightarrow

In particular, if we take $h \in S^*$ — so that h contains two pencils L and $L'(L)$ from X — then j^*h will consist simply of the set of pencils having a line in common with either L or $L'(L)$ — i.e.,

$$j^*h = B_L \cup B_{L'(L)}.$$

$$\Gamma \quad l \in j^*h \Rightarrow j(l) = P_l \in S \cap h, \text{ and let } l = \sigma(P_l, h_l) \Rightarrow \text{Since } l \subset X, \text{ and } \sigma(P_l, h_l) \cap \sigma(h) \ni h_l \cap h, \quad l \cap \sigma(h) \cap X \neq \emptyset. \Rightarrow l \text{ intersects with } L \text{ or } L'(L), \text{ since } \sigma(h) \cap X = L \cup L'(L).$$

Conversely, if $l \cap L \neq \emptyset$, $\sigma(P_l, h_l) \cap \sigma(P_L, h) \neq \emptyset$



suppose $x \in l \cap L$.

$$\Rightarrow x = \overline{P_l P_L} \Rightarrow P_l \in h$$

\Rightarrow Thus j^*h is the set of