$$+(D-\lambda_4-\lambda_3)\left\{1+\tfrac{2}{3}\left(\frac{f-x_3}{D-\lambda_4-\lambda_3}\right)^2-\tfrac{2}{5}\left(\frac{f-x_3}{D-\lambda_4-\lambda_3}\right)^4\right\}$$

$$-(D-\lambda_4-\lambda_3-\lambda_2)\left\{1+\tfrac{2}{3}\left(\frac{f-x_2}{D-\lambda_4-\lambda_3-\lambda_2}\right)^2-\tfrac{2}{5}\left(\frac{f-x_2}{D-\lambda_4-\lambda_3-\lambda_2}\right)^4\right\}$$

$$+\lambda_1\left\{1+\tfrac{2}{3}\left(\frac{x_1-x_2}{\lambda_1}\right)^2-\tfrac{2}{5}\left(\frac{x_1-x_2}{\lambda_1}\right)^4\right\} \qquad (1)$$

Condition, that points A and IV are points of the same parabola:

$$\frac{B^2}{a}=\frac{(B-\lambda_4)^2}{a-x_4} \quad . \quad . \quad . \quad (2)$$

The same conditions for points III and II:

$$\frac{(C-\lambda_4)^2}{b-x_4}=\frac{(C-\lambda_4-\lambda_3)^2}{b-x_3} \quad . \quad (3)$$

$$\frac{(D-\lambda_4-\lambda_3)^2}{f-x_3}=\frac{(D-\lambda_4-\lambda_3-\lambda_2)^2}{f-x_2} \quad . \quad (4)$$

Equality of the horizontal force gives the following: