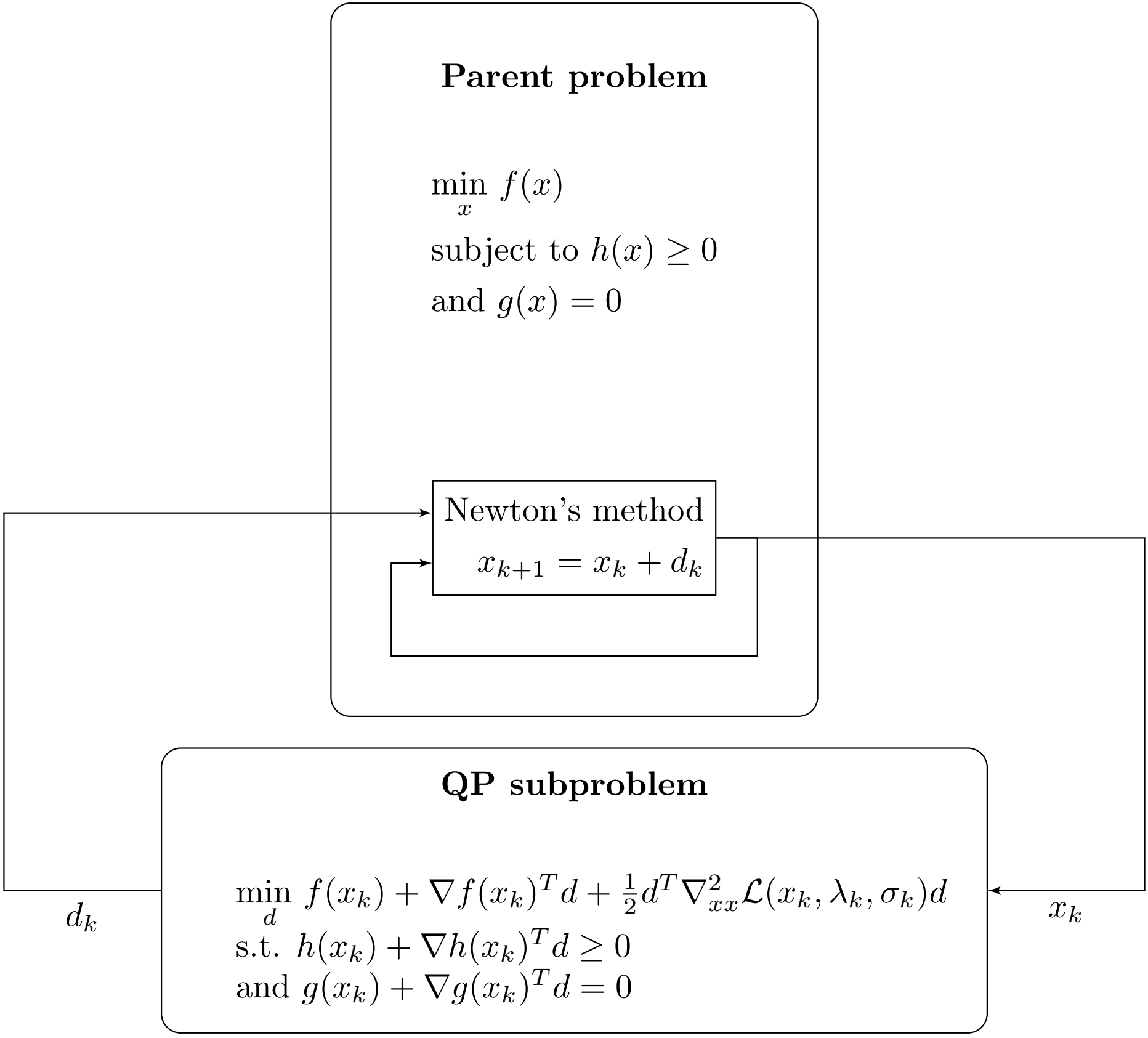
Parent problem
$\min_x f(x)$
subject to $h(x) \geq 0$
and $g(x) = 0$
Newton's method
$x_{k+1} = x_k + d_k$
QP subproblem
$\min_d f(x_k) + \nabla f(x_k)^T d + \frac{1}{2} d^T \nabla^2_{xx} \mathcal{L}(x_k, \lambda_k, \sigma_k) d$
s.t. $h(x_k) + \nabla h(x_k)^T d \geq 0$
and $g(x_k) + \nabla g(x_k)^T d = 0$
d_k
x_k