```
fun (F : Prop) (S : Set) (P : S -> Prop)
    (H : (forall x : S, F) -> F)
    (H0 : forall x : S, ((P x -> F) -> F) -> P x)
    (H1 : forall x : S, (P x -> forall y : S, P y) -> F) =>
H (fun x : S =>
   H1 x (fun (_ : P x) (y : S) =>
         H0 y (fun H3 : P y -> F =>
               H1 y (fun (H4 : P y) (z : S) =>
                     H0 z (fun _ : P z -> F =>
                           H3 H4)))))
```

$$\lambda\bot^{*}.\,\lambda S^{*}.\,\lambda P^{S\to *}.\,\lambda H^{(S\to\bot)\to\bot}.\,\lambda {H_0}^{\forall x^S.\,((Px\to\bot)\to\bot)\to Px}.\,\lambda {H_1}^{\forall x^S.\,(Px\to\forall y{:}S.\,Py)\to\bot}.$$
$$H\,(\lambda x^S.\,H_1\,x\,(\lambda {H_2}^{Px}.\,\lambda y^S.\,H_0\,y\,(\lambda {H_3}^{Py\to\bot}.\,H_1\,y\,(\lambda {H_4}^{Py}.\,\lambda z^S.\,H_0\,z\,(\lambda {H_5}^{Pz\to\bot}.\,H_3 H_4)))))$$

$$
\dfrac{\dfrac{\dfrac{\dfrac{[(\forall x.\,\bot)\to\bot^{H}] \quad \dfrac{\dfrac{\dfrac{[\forall x.\,(P(x)\to\forall y.\,P(y))\to\bot^{H_1}]}{(P(x)\to\forall y.\,P(y))\to\bot}\,E\forall \quad \dfrac{\dfrac{\dfrac{\dfrac{[\forall x.\,((P(x)\to\bot)\to\bot)\to P(x)^{H_0}]}{((P(y)\to\bot)\to\bot)\to P(y)}\,E\forall \quad \dfrac{\dfrac{\dfrac{[\forall x.\,(P(x)\to\forall z.\,P(z))\to\bot^{H_1}]}{(P(y)\to\forall z.\,P(z))\to\bot}\,E\forall \quad \dfrac{\dfrac{\dfrac{\dfrac{[\forall x.\,((P(x)\to\bot)\to\bot)\to P(x)^{H_0}]}{((P(z)\to\bot)\to\bot)\to P(z)}\,E\forall \quad \dfrac{\dfrac{[P(y)\to\bot^{H_3}] \quad [P(y)^{H_4}]}{\bot}\,E{\to}}{(P(z)\to\bot)\to\bot}\,I[H_5]{\to}}{P(z)}\,E{\to}}{\forall z.\,P(z)}\,I\forall}{P(y)\to\forall z.\,P(z)}\,I[H_4]{\to}}{\bot}\,E{\to}}{(P(y)\to\bot)\to\bot}\,I[H_3]{\to}}{P(y)}\,E{\to}}{\forall y.\,P(y)}\,I\forall}{P(x)\to\forall y.\,P(y)}\,I[H_2]{\to}}{\bot}\,E{\to}}{\forall x.\,\bot}\,I\forall}{\bot}\,E{\to}}{(\forall x.\,(P(x)\to\forall y.\,P(y))\to\bot)\to\bot}\,I[H_1]{\to}}{(\forall x.\,((P(x)\to\bot)\to\bot)\to P(x))\to(\forall x.\,(P(x)\to\forall y.\,P(y))\to\bot)\to\bot}\,I[H_0]{\to}}{((\forall x.\,\bot)\to\bot)\to(\forall x.\,((P(x)\to\bot)\to\bot)\to P(x))\to(\forall x.\,(P(x)\to\forall y.\,P(y))\to\bot)\to\bot}\,I[H]{\to}
$$