```
hforall_def  THM

⊢  ∀'a:S. equal(all,λP:'a → hbool. equal(P,λx:'a. t))
| by Simpset [‘hol_to_nuprl‘] THEN StrongAuto THEN Simp
|    THEN
|    StrongAuto
|
1. 'a : S
⊢  (λp:'a→𝔹. ∀b x:'a. (p(x))) = (λP:'a→𝔹. P =b (λx:'a. true2))
| by Simpset [‘ext‘] THEN StrongAuto
|
1. 'a : S
2. P : 'a→𝔹
⊢  (λp:'a→𝔹. ∀b x:'a. (p(x)))(P) = (P =b (λx:'a. true2))
| by Reduce 0 THEN Simpset [‘bequal‘] THEN StrongAuto THEN Simp
|    THEN
|    StrongAuto
|
|\
| 1. 'a : S
| 2. P : 'a→𝔹
| 3. ∀x:'a. P(x)
| ⊢  P = (λx:'a. true2)  by Simpset [‘ext‘] THEN StrongAuto
| |
| 1. 'a : S
| 2. P : 'a→𝔹
| 3. ∀x:'a. P(x)
| 4. x : 'a
| ⊢  P(x) = true2
| | by Simpset [‘bequal‘] THEN StrongAuto THEN Simp THEN StrongAuto
| |
| 1. 'a : S
| 2. P : 'a→𝔹
| 3. ∀x:'a. P(x)
| 4. x : 'a
| 5. True
| ⊢  P(x)  by BackThru 3 THEN StrongAuto
|
.\
. 1. 'a : S
. 2. P : 'a→𝔹
. 3. P = (λx:'a. true2)
. 4. x : 'a
. ⊢  P(x)  by HSimp THEN StrongAuto THEN Reduce 0 THEN StrongAuto
END
```