```
decidable__equal_bool  THM

⊢  ∀a,b:𝔹. Dec(a = b)  by UnivCD
|
1. a : 𝔹
2. b : 𝔹
⊢  Dec(a = b)  by Unfold ‘decidable‘ 0 THEN AllBoolInd
|
|\
| (no hyps)
| ⊢  true₂ = true₂ ∨ ¬true₂ = true₂  by Sel 1 (Analyze 0)
|
|\
| (no hyps)
| ⊢  false₂ = true₂ ∨ ¬false₂ = true₂  by Sel 2 (Analyze 0)
| |
| ⊢  ¬false₂ = true₂  by (Analyze 0) THEN (SwapEquands -1)
| |
| 1. true₂ = false₂
| ⊢  False
|   by MoveToConcl 1 THEN Fold ‘not‘ 0
|      THEN
|      BackThru Thm* ¬true₂ = false₂    {btrue_neq_bfalse}
|
|\
| (no hyps)
| ⊢  true₂ = false₂ ∨ ¬true₂ = false₂
|   by (Sel 2 (Analyze 0))
|      THEN
|      (BackThru Thm* ¬true₂ = false₂    {btrue_neq_bfalse})
|
.\
. (no hyps)
. ⊢  false₂ = false₂ ∨ ¬false₂ = false₂  by Sel 1 (Analyze 0)
END
```